Public Assessment of Social and Economic Rehabilitation Component of Leprosy Control Programmes in Anambra and Ebonyi States of Southeast Nigeria

Nwankwo, Ignatius Uche

Correspondence:

Nwankwo, Ignatius Uche, Ph.D. Department of Sociology/Anthropology Nnamdi Azikiwe University, Awka, Anambra State, Nigeria

Email: iunwankwo@yahoo.com

Abstract

Three major objectives informed this research paper. The first was to find out the types of social and economic rehabilitation (SER) activities available to persons affected by leprosy (PAL) in Anambra and Ebonyi states of Southeast Nigeria. The second is to find out the nature of public perception on adequacy and outcomes of social and economic rehabilitation packages for leprosy cases, while the third is to verify public view about adequacy or otherwise of funding for social and economic rehabilitation of persons affected by leprosy in the two states. The study adopted a cross-sectional survey design. Quantitative data was generated through structured questionnaire schedule administered on 1116 study participants. The participants were selected through a combination of cluster and simple random sampling methods. Qualitative data were generated through two instruments. These were Focus Group Discussion (FGD) administered on persons affected by leprosy and In-Depth Interview (IDI) of leprosy control staff and officials from both World Health Organization and the donor agency supporting leprosy control in the two states. The Statistical Package for the Social Sciences (SPSS) software was employed in analysis of data. Frequency tables, percentages, bar charts, chi-square and multiple regressions were used for presentation, analysis and in testing the stated hypotheses. It was found that only 25.5% of the respondents

acknowledged availability of SER component which is institutional rather than community based. Furthermore, most respondents assessed SER activities in leprosy control in the two states as largely unsuccessful One hypothesis test showed that more respondents with low income perceived a link between adequate funding and effective leprosy control programme than those with higher levels of income (X2=190.427,df=70,p=0.000). It was recommended that aggressive public enlightenment through public, private and local media; incentive package for health workers and extensive socio-economic empowerment for effective rehabilitation of patients be adopted to enhance leprosy control in Anambra and Ebonyi states.

Key words: Assessment, Leprosy, Leprosy Control, Social and Economic Rehabilitation, Empowerment

Introduction

Leprosy is one of the oldest diseases of mankind. It has a unique social dimension that often culminates in the total destabilization of the social life of its victims. From the earliest times, leprosy has been a disease set apart from others. Its victims and even their care givers are ostracised in many societies. Although the disease seldom kills (Bryceson and Pfaltzgraff 1990), it remains a public health problem and cause of morbidity especially in developing countries like Nigeria. The disease is also one of the leading causes of permanent disability worldwide and has over the year's left a terrifying memory of mutilation, rejection and social exclusion (Lockwood, 2000). There are serious problems confronting control programmes and victims of leprosy in affected countries. In Nigeria, Sofola (1999) expresses concern at poor funding of leprosy control activities. There is also an enormous problem of policy inconsistency in the area of leprosy control. The initial emphasis of control activities was on isolation of victims at Leprosaria where specialist health staff attend to them. The gains of this original focus were as yet not fully tapped when a shift in policy was initiated. According to Eboh (1999), the old arrangement contributed to the difficulty in achieving the present policy thrust of integrating leprosy control programme with general primary health care. It also resulted in the failure of newer measures to attain optimal results, since most people still adhere to the old practices.

Particularly disturbing is the graph below from World Health Organization (WHO) Southeast of Nigeria Office (2010), which shows that the Southeast zone of Nigeria has consistently recorded increases (rather than decreases) in both new case detection and prevalence of leprosy since 2006-2009. This raises fundamental questions about the potency of leprosy control programme and whether leprosy should be classified as a re-emerging disease in the area and for what reasons.

Furthermore, poor leprosy control outcomes have persisted to the extent that a former World Health Organization's Country Representative in Nigeria, Dr Peter Ekiti lamented that in 2008; only 14% of the estimated new leprosy cases in Nigeria were actually detected and enrolled for treatment (Ekiti, 2010). Similarly, Adagba (2011) and was very critical that prevalence of leprosy among children in Nigeria is still high and unacceptable.

450

600 500 400 300 - Prevalence 200 100 0 2006 2008 2009 2005 2007 414 406 488 342 391

Figure 1: Leprosy New Case Detection (NCD) and Prevalence, 2005 - 2009 for South-east Zone of Nigeria

Source: World Health Organisation, Southeast Zonal Office, Enugu Nigeria, (2010).

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433

461

In 2008, Nigeria was ranked at the fifth position among nations with high leprosy burden in the world, and in Africa, second only to Republic of Congo (W.H.O, 2008). Nigeria's registered prevalence of leprosy as at 2002 was 5890 (FMOH, 2004). It declined to 5381 by the beginning of 2008 (W.H.O, 2008) and further to 3913 cases at the end of 2010 (Adagba, 2011). The above situation appears to be compounded by enormous fear of leprosy among the Nigerian populace (Ogoegbulem, 2000). In many parts of Nigeria, despite the existence of leprosy control activities since the pre-Dapsone era of 1900-1947, the fear and stigma of leprosy remains high and separates persons affected by leprosy (PAL) from their fellows. Nicholls (2000) had similarly observed that in both Eastern and Western cultures, fear of leprosy has existed from ancient times.

On the other hand, Osakwe (2004) regretted that community participation which is a crucial element in leprosy control has remained weak in Nigeria. Consequently, community response or behaviour toward those suffering from leprosy is characterized by avoidance, insult and rejection of victims. Even discharged leprosy ex-patients are not spared of these actions that also constitute violation of human rights.

Nicholls (2000) further observes that leprosy more than any other disease has caused individuals to leave their families and communities and be forced to live as outcasts in separate colonies and settlements. Some of such colonies or settlements are still operating at Okija, Otolo-Nnewi, and Amichi communities in Anambra state; and at Mile Four Abakaliki and Uburu communities at Ebonyi state. There are others at other parts of Nigeria. Their continued operation is an evidence of the failure of the National Leprosy Control Programme to implement home based or ambulatory care arrangement where most patients access treatment from their homes, except those who are in critical conditions and require hospitalization. The advantage of home based care in reducing segregation and facilitating the new thrust toward Community Based Rehabilitation (CBR) cannot be over-emphasized. Also problematic is the fact that at such colonies, inmates live in dilapidated structures surrounded by bushes in more or less inhuman conditions. An integrated and effective leprosy control programme has a responsibility to provide conducive living and treatment environment to persons affected by leprosy. It should indeed address their bio-medical, social and economic needs.

Accordingly, Smith (2000) notes that Social and Economic Rehabilitation (SER) is a major priority in any leprosy control effort. This emphasis according to W.H.O (1999) is aimed at addressing problems of stigmatization, inability to work, social isolation and economic dependency. However, Ogbeiwi (2005) reports that the SER component of Nigeria's National Leprosy Control Programme does not reflect the priority it deserves; hence it is yet to make any appreciable impact. Persons affected by leprosy in Southeast Nigeria are already burdened by medical and bio-physical challenges posed by the disease. Their having to further contend with very serious social, economic and psychological problems arising from societal perception and consequent reactions

to their predicament are weighty. Ogoegbulem (2000), reports that they often encounter severe loss of dignifying self concept and social recognition. They are not usually welcome at public functions. On rare occasions where these patients or ex-patients force themselves unto a gathering, this might result either in an abrupt dismissal of participants or in avoidance of any form of physical contact with them. Indeed, Nigerians are afraid to sit near persons affected by leprosy at churches, markets, vehicles; village squares and so on. They are also reluctant to marry from families of known leprosy patients (Ogoegbulem, 2000).

The lack of friendship and other forms of association as well as divorce or threats of divorce from spouses constitute part of the numerous social problems faced by persons affected by leprosy. The control programme in Nigeria ought to find answers to these myriad of problems.

In another development, the value of the use of economic empowerment as a tool of leprosy control has been extensively documented by scholars. Examples of these are Nash (2001); Federal Ministry of Health (FMOH, 1997); Macaden (1996); Pearson (1988). However, Ogbeiwi (2005) notes that the approach is yet to be adequately exploited in Nigeria. This is despite the fact that the disease is widely known to have devastating effect on the economic life of its victims. For instance, Rafferty (2005), notes that leprosy destroys productivity of victims through series of disablement or lack of physical function which it engenders. The situation is complicated by the fact that societies avoid goods and services offered by persons affected by leprosy. Such poor patronage tends to de-motivate the victims as it forces them to abandon their trades.

In the light of the above and given the inadequacy of economic support package from the control programme, persons affected by leprosy often resort to begging on the streets as means of self-sustenance. Consequently, markets, bus-stops, motor-parks, entrances to churches, banks and offices are littered with these destitute. This constitutes a threat to public health. It also generates public outcry about the welfare of persons affected by leprosy which the control programme has a responsibility to protect.

The lukewarm attitude of health workers toward leprosy control activities (Adagba, 2011) is also a major challenge facing the control programme Poor allowances, negative cultural reactions towards leprosy and fear of contracting the disease negatively affect the disposition of health workers to committed service. Consequently, the workers have not prosecuted aspects such as public health education and ulcer dressing in leprosy with sufficient zeal and enthusiasm. Because of this, individuals and groups have expressed deep concerns about poorly maintained leprosy ulcers often exuding odorous discharges and attracting flies which have become regular feature of persons affected by leprosy. Leprosy victims endure the pain of such ulcers as they move about to solicit for alms. These patients are also unsightly and degrade the aesthetic beauty of neighbourhoods by their low level of personal and environmental hygiene.

The gender dimension and social stratification implications of leprosy are other areas which the control programme is yet to adequately address. The gender dimension of leprosy is such that women encounter the severest forms of social, economic and psychological consequences compared to their male counterparts upon diagnosis of leprosy (Kaur and Rameshi 1994; Grand 1997; Rao, Garole and Walawalker 1996). Women do not also occupy important positions in self help groups formed by patients in their colonies. This is especially so in a highly patriarchal society like the South-eastern part of Nigeria where subservient position and economic dependence of women on men are culturally defined. Sofola (1999), observes that in many leprosy colonies in Nigeria, women affected by leprosy get smaller portions of land for cultivation compared to the males. Observation of the current situation suggests that equality of the sexes in accessing rights and privileges accruable from leprosy control programme remains defective in Nigeria.

Valsa (1999) examined social acceptance and social stratification implications of leprosy. He found that those affected could lose their position in the social ranking of society. They could be barred from taking important titles or occupying positions of authority and honour. They are not allowed to officiate important occasions or to perform important rites associated with such occasions even when it is their right by birth in the community to do so (Kaufman, Neville and Miriam, 1993; Ogoegbulem, 2000). Expectations that leprosy control programme in Nigeria would reverse the trend so far remains a mirage. Above all, although WHO introduced Multiple Drug Therapy (MDT) since 1985 as drug of choice for leprosy (FMOH, 2008), it appears that the treatment component of leprosy control programmes have failed to respond to the needs of persons affected by leprosy for cure or full recovery without any deformity. The situation is such that it is often difficult to distinguish between victims who accessed treatment services from those who did not due to permanent disabilities. Also, their social and economic predicaments are similar in most respects thus indicating that the rehabilitation process of those who accessed treatment services was not successful. Ogoegbulem (2000) observes that victims of leprosy who have completed treatment in parts of Nigeria are not fully reunited and reintegrated into the society and generally lack means of sustenance.

The seemingly resilient nature of leprosy and its associated problems in Nigeria generate doubts about the sincerity and commitment of National Leprosy Control Programmes toward eradication of leprosy by World Health Organization's global target date. It is against the backdrop of the above background and problems that the research was undertaken to investigate public assessment of social and economic rehabilitation component of leprosy control programmes in Anambra and Ebonyi states of Southeast Nigeria.

Brief Review of Literature on Role of Social and Economic Rehabilitation (SER) in Leprosy Control

The role of rehabilitation as one of the most important aspects of leprosy control has been emphasized by several scholars (see Nash 2001; Macaden 1996; Pearson 1988; FMOH 1997). According to Nash (2001), rehabilitation of persons affected by leprosy is a process that helps them to feel accepted, valued and included in their community. It assists them live as normal a life as possible. Pearson (1988) defines it as the diagnosis, treatment and prevention of dehabilitation occasioned by leprosy.

Rehabilitation for leprosy patients usually involves physical, social, economic and psychological components (FMOH, 1997). Pearson (1988) gave reasons for the multiple levels of emphasis. He noted that leprosy can cause its victims to lose physical forms, family and place in society. It can also cause them to lose their work, other means of livelihood and their self respect. These situations Pearson says require detailed rehabilitation response.

According to Macaden (1996), rehabilitation services for persons affected by leprosy could be organised in three ways as follows:

- **a. Institution Based Rehabilitation** where patients lived in and accessed rehabilitation service only at the health institution, usually a Leprosarium. Patients were not integrated into their family or community.
- **b. Outreach Services** obtainable at camps, outreach service points and patient's home
- c. Community Based Rehabilitation (CBR). This is the current emphasis both in Nigeria and globally (FMOH,1997). It seeks not only to help people overcome their impairments, but also to help them to settle back fully in their communities. CBR in leprosy control adopts an integrated approach. It involves community participation in provision of rehabilitation services to patients with diverse social, economic, physical and psychological needs (FMOH, 1997).

Macaden (1996) similarly stressed that CBR in leprosy transfers to members of the family of the patient and the community in which they live, the skills needed to manage physical impairments and to provide vocational training and placement. On his part Nash (2001) notes that the role of community participation in CBR is very crucial to the extent that sometimes, the community needs as much rehabilitation as the persons affected by leprosy in order to creditably discharge their role in rehabilitation.

Smith (2000) also saw social and economic rehabilitation (SER) of people affected by leprosy as a major priority that requires considerable emphasis by control programmes. This emphasis according to W.H.O (1999), is sequel to problems of stigmatization, shame, isolation, inability to work or marry, dependency on others for care and financial support which persons affected by leprosy are exposed to in many societies.

Nash (2001) reports that in Nigeria, adherence to guidelines on social and economic rehabilitation has been useful in restoration of normal social and economic life of persons affected by leprosy. He observed that preliminary need assessment of patients and active community participation have ensured that they fitted into new socio-economic roles like poultry keeping, soap making, weaving, tailoring, shoe-making etc. Such roles he says, restores social acceptance and respect to patients.

Chukwu (2004) also looked at the practice of CBR in Nigeria. He commended German Leprosv Relief Association's support towards social and economic rehabilitation of persons affected by leprosy across fourteen states in the Southeast and Southwest of Nigeria. He noted that the organization has built houses, and paid subsistence allowance to patients. They have also bought motorcycles for public transport services and given capital to enable persons affected by leprosy to start their own businesses. Despite these supports by German Leprosy Relief Association, Chukwu (2004) insists that contributions of the rehabilitation arm of leprosy control remains insignificant across most of Nigeria. According to him, persons affected by leprosy experience various forms of discrimination on account of the disease. Many of them have no means of subsistence and depend on begging to survive.

Research Questions

The following research questions guided the study:

- (a) What types of social and economic rehabilitation programmes are available to persons affected by leprosy in Anambra and Ebonyi states?
- **(b)** What are the perceived outcomes of social and economic rehabilitation of persons affected by leprosy in Anambra and Ebonyi states?
- **(c)** How do people of Anambra and Ebonyi States of Southeast Nigeria perceive the level of funding for social and economic rehabilitation of persons affected by leprosy in their area in terms of its adequacy?

Theoretical Framework

The labelling theory is relevant in explaining the problem of leprosy in the study area. Labelling theory is particularly useful in the analysis of the qualitative data. This is because of its emphasis on social constructionism.

Labelling theory was also adopted as the theoretical platform because its basic postulations explicitly relate to the process of social definition and stigma surrounding leprosy. These are central issues to leprosy problem in society. Negative cultural imaging of leprosy, and the manner in which societies through the instrument of language defined leprosy as a curse from gods, or as disease of the unclean, have adverse consequences for its control. People are reluctant to be associated with the

disease whether as patients or health workers because of the stigma attached to it. It is therefore not surprising that despite its long history and availability of free and effective drugs (FMOH, 2004), leprosy remains a public health problem in our environment.

Adverse religious perspectives on leprosy have also done much to intensify leprosy stigma and worsen problems arising from leprosy in our society. Awofeso (2005) notes that biblical references like Leviticus 13:45; Numbers 5:2; and 2 Kings 26:21 create an impression that leprosy is a dreaded disease associated with sinners. He observes also that Buddhist teaching on Karma make it acceptable for believers to frame leprosy sufferers as sinners in their past incarnation. These conceptions compounded by low level of education, constitute major obstacles to leprosy control.

Labeling also offers adequate explanation to why persons affected by leprosy try to cover up their disease and fail to avail themselves of early treatment. The situation results in severe deformities and complications. The theory also accounts for the lack of enthusiasm of health workers to leprosy work, and for low level of integration of patients into their community.

Materials and Methods

The study located in Anambra and Ebonyi states, randomly selected out of five states of Southeast Nigeria, adopted cross-sectional survey design. The Southeast zone of Nigeria was purposively selected because of the steady increase (rather than decrease) in number of leprosy cases registered annually in the zone during 2006 - 2009 (see Table 1 - top of next page).

The indigenous ethnic group in the two states are the Igbo of whom Ifemesia (1979) observes that their territory covers an area of over 15,800 square miles. Nwala (1985) circumscribed the area between 60 and 8½0 East longitude and 4½0 and 7½0 North latitude. He noted that Igbo land is very densely populated.

Anambra and Ebonyi states are rich in natural resources and arable soil. Land cultivation, trading, arts and crafts, animal husbandry and civil service are major economic activities in the two states. However, people of Anambra state are more involved in entrepreneurship and commerce whereas Ebonyi state is notable for agricultural prowess (Uzozie 2002; Onokala 2002).

There is an elected civilian government in Anambra and Ebonyi states whose role in governance of the area is complemented by socio-political structures and pressure groups that characterize Igbo traditional societies like gerontocracy, village assembly, titled men, women groups all of which are relevant to grass root administration in both states. Similarly, Christianity enjoys greater followership in the area but exists side by side with traditional religion which still has many adherents.

Table 1: Distribution of Leprosy cases according to States in the Southeast Zone of Nigeria during the period 2006-2009

State	Registered cases of leprosy				Total per
	2006	2007	2008	2009	state from 2006-2009
Abia	99	112	127	74	412
Anambra	13	46	27	27	113
Ebonyi	148	175	204	279	806
Enugu	73	67	66	51	257
Imo	29	33	26	30	118
Total for the zone per year	362	433	450	461	

Source: World Health Organisation, Southeast Area Office, Enugu - Nigeria, (2010). Leprosy New Case Detection, Case Detection Rate and Prevalence Rate for Southeast Zone, 2006-2009.

Table 2: Local Government Areas (LGA), Communities and Villages used in the study

States	LGAs	Communities	Villages/Streets	Compounds Visited	No of Respondents
Idem)	Nnewi North (Urban)	Otolo	Orizu Road	62	186
	Idemili South (Rural)	Alor	Ifite village	62	186
	Awka North (Rural)	Achalla	Umudiana village	62	186
Ohao:	Abakaliki (Urban)	Abakaliki	Ibibio Street	62	186
	Ohaozara (Rural)	Okposi	Okposi-ukwu	62	186
	Ohaukwu (Rural)	Efiom	Akparata village	62	186
Total	6 LGAs	6 Communities	6 Villages/Str.	372	1116

Source: Field Survey, 2010

The total population of Anambra and Ebonyi states as at 2006 national population and housing census in Nigeria was 6,354,775 made up of 3,182,140 males and 3,172,791 females. However, the study population consisted of only adults, defined as persons aged 18 years and above. There are about 3,515,370 adults in the area which represented 57.2% of the total population.

A sample size of 1116 respondents (558 from each state) constituting about 0.32% of the study population was used to generate quantitative data in this study. The sample was adequate for applicable statistical tests. The sample also accommodated geographical spread and rural-urban bias at the ratio of 2:1.

Qualitative data was generated from 64 respondents made up of 52 persons affected by leprosy (26 from each state); 6 LGA leprosy control supervisors (3 from Anambra and 3 from Ebonyi) on the basis of one supervisor per selected LGA in each state; 4 officers from Leprosy Control Units of Ministry of Health in the two states (2 from each state) and one official each from Donor Agency supporting leprosy control and World Health Organization. The cluster (multistage) sampling approach involving division of the population or geographical area into units and selecting specific number of these units by simple random sampling techniques was adopted for selection of members of the public.

Three instruments were combined in the study for optimum results. Quantitative data were collected through questionnaire with closed and open ended items administered on a one-on-one (other administered) basis with all respondents. The instrument was pre-tested by the researcher and five Field Assistants pre-trained for the purpose in four sessions outside the study communities,

at Eziani- Ihiala, in Ihiala LGA of Anambra state with 40 compounds/households and 120 respondents. This was to ensure reliability and suitability of the instrument to meet study objectives. The language of administration was Igbo, spoken in the area, because there were many respondents who could not read, write or understand English language. Nonetheless, English was used where any respondent showed preference for English language. The instrument which was originally in English was translated into the local language, which is Igbo and retranslated into English, to provide both Igbo and English versions. Same sex administration of questionnaire was carried out to prevent any cultural barriers and permit free discussion or responses to questionnaire items.

Qualitative data were gathered through Focus Group Discussions (FGD) and In-Depth Interview (IDI). The FGD involved persons affected by leprosy (patients) who were not respondents in the questionnaire study. There were four FGD sessions with 6-12 participants per session. Participants were segmented along gender. Two FGD sessions were conducted at Mile Four Hospital Abakaliki, Ebonyi state for male and female groups respectively. The other two were conducted at Fr Damian Tuberculosis and Leprosy Referral Hospital Nnewi, Anambra state. Both institutions were convenient to both in and out-patients. Each session was held on leprosy clinic days which are usually market free days in the area of study. The moderator of the FGD was of the same sex with their FGD group and worked with the co-operation of leprosy control staff on duty. There were also two assistants for each FGD session. The language of administration was Igbo. A tape recorder and field notebook was used to record proceedings. One assistant took notes in the course of each session while the other served as Tape Recorder Operator.

The second qualitative tool was the conduct of In-Depth Interview (IDI). It was used to interrogate four officials who are major stakeholders in leprosy control project. These were Leprosy Control Officers or their assistant in the two states, Medical Officer of German Leprosy Relief Association, and W.H.O's Principal Officer for Leprosy Control for Southeast Area of Nigeria. The interview schedule was unstructured and tailored to generate detailed information on the subject of study. The in-depth interviews were conducted by the researcher and two of the assistants at the offices of the stated officials. Tape recorder and field note book were used to record responses from interviewees. The interview schedule guided the interview which was conducted in English language due to respondents' preference and literacy level.

Quantitative data gathered in the course of research were analysed with the help of the Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics like frequency distribution tables, mean, median, percentages and bar-charts were used to interpret data. One correlation analysis (the chi-square) was employed in hypotheses test. On the other hand, qualitative data generated through FGD and IDI were transcribed and organised under different aspects of the discussion and used to explain quantitative data where applicable.

Research findings

One thousand, one hundred and sixteen (1116) questionnaires were administered out of which 1104 were used for analysis after coding and cleaning/ editing all validly completed and returned questionnaire schedules. Results and their analysis were presented according to research questions for easy comprehension.

(a) Socio-Demographic/Personal Characteristics of Respondents

The socio-demographic profile of respondents is presented in Table 3 (next page).

Table 3 shows that females constituted 54.3% of the total respondents, while the males constituted 45.7%. Many of the respondents (29.5%) fall within the age bracket of 38 - 47 years. The least number of respondents (4.3%) came from the age - group of 45 years and above. However, the modal and median ages were 41 and 45 years respectively. Also, the mean age of respondents was 40.33 years with a standard deviation of 13.45.

With regard to the marital status of the respondents, 45.2% were married while 32.9% are single. The widowed, separated and divorced respondents were very few (11.7%, 5.6% and 4.6% respectively). The large number of married respondents illuminates the high premium placed on marriage and family institution in the area. Similarly, divorce is low probably because the value system abhors it. Being married and having stable marriage are accorded high esteem and social honour among Igbo people.

With respect to religious affiliation, the table clearly shows that more than three-quarters of the respondents (80.6%) were Christians. A few of the respondents belong to other religious groups including Islam (1.9%), traditional religion (17.1%) and other unspecified groups (.4%).

In terms of highest formal educational attainment, those who possess secondary school certificate constituted 37.5% of the respondents. Other categories of educational attainment/ certification were tertiary (21.3%), vocational/ technical school (15.2%), and primary school certificate holders (12.9%). With only 13.1% of the respondents without any form of formal education, the literacy level in the area is relatively high. However, more respondents from Anambra state (27.7%) had tertiary education than those from Ebonyi state where only 15% had tertiary education.

The respondents were almost equally divided across three major occupations. These are farmers (23.6%), traders (22%), and civil/public servants (21.6%). Students, apprentices, artisans and the unemployed were few. They constituted 10.8%, 7.7%, 7.2%, and 6.7% respectively. The occupational distribution of the respondents highlighted above mirrors the popular description of Ebonyi state as food basket (major agricultural zone) of the nation, and Anambra state as center for commerce and other entrepreneurial activities. The predominance of farmers

Table 3: Distribution of Respondents by Socio-Demographic Characteristics

Socio – Demographic Characteristics (Items 1 – 11)	Frequency N = 1104	Percentage %
Sex		
Male	505	45.7
Female	599	54.3
Age Group		1000000
18 - 27	246	22.3
28 - 37	206	18.7
38 - 47	326	29.5
48 - 57	201	18.2
58 - 67	78	7.1
68 and above	47	4.3
Marital Status		
Married	499	45.2
Single	363	32.9
Divorced	51	4.6
Separated	62	5.6
Widowed	129	11.7
Religious Affiliation		200000
Christianity	890	80.6
Islam	21	1.9
Traditional Religion	189	17.1
Others	4	.4
Highest formal Educational Attainment		
No Formal Education	145	13.1
Primary School Certificate	142	12.9
Secondary School Certificate	414	37.5
Vocational/Technical School Certificate	168	15.2
Tertiary	235	21.3
Occupation		
Civil/Public Servant	239	21.6
Trader/Business man	243	22.0
Farmer	260	23.6
Student	119	10.8
Apprentice	85	7.7
Artisan	80	7.2
Unemployed	74	6.7
Others	4	.4
Nature of Income Per Month		
Regular	239	21.6
Periodic	634	57.4
No Income	231	20.9
Income Per Quarter of a year (every 3 months	V.	
period)		
None	232	21
Below N30,000	147	13.3
N31,000 - N50,000	141	12.8
N51,000 - N70,000	123	11.1
N71,000 - N90,000	149	13.5
N91,000 - N110,000	124	11.2
N111,000 - N130,000	93	8.4
	95	8.6

Source: Field Survey, 2010.

and traders in the area of study is therefore not a major surprise. However, the nature of income reveals that most of the respondents (57.4%) earn periodic income; 21.6% earn regular income on monthly basis, while 20.9% earn no income at all.

In terms of actual income earned per quarter (every three months), many of the respondents (21%) earn no income. These include students, apprentices, some artisans and the unemployed. More than two-thirds of these respondents that earn no income are from Anambra state. Furthermore, 13.5% of the respondents earn below N30,000 per quarter, and only 8.6% earn above N131,000 per quarter. This shows that income status of individuals within the area of study is generally low. The mean income per quarter of the respondents is about N59,033 with a standard deviation of N45,933. The median income stood at about N55,378.

(c) Research Question 1: What types of social and economic rehabilitation programmes are available to persons affected by leprosy in Anambra and Ebonyi states?

Data relevant to the research question are presented in Tables 4 and 5 below.

Table 4 shows that 66% of the respondents stated that there was no SER component of leprosy control in their area. Only 25.5% of the respondents acknowledged existence of any form of SER activities. However, more respondents

from Ebonyi state (75.3%) were of the view that SER was not a component of leprosy control in their state as against 56.6% who had a similar opinion at Anambra state. Also, most of the respondents (60.7%) identified the core rehabilitation strategy as institutional or colony based (see Table 5 below). This suggests that the current thrust of World Health Organization (WHO) towards Community Based Rehabilitation (CBR) is yet to make an appreciable impact in the two states.

The specific SER activities provided or available to patients were also identified. They included resettlement of persons affected by leprosy in colonies which ranked tops with 36.7% of responses. Others were public re-orientation (17.3%), vocational / occupational training (12.6%), and financial support to set-up small businesses (10.9%).

Furthermore, approximately half of the respondents (49.5%) were of the view that government, NGOs, companies, philanthropists and faith based organizations do not provide support for SER activities. Only about 14.9% and 11.1% of the respondents acknowledged NGO and government support for SER activities as part of leprosy.

Similarly, most of the respondents (79.0%) were also of the opinion that vocational training was not provided to leprosy patients. In a similar vein, most of the respondents (78.8%) submitted that vocational training in the areas of carpentry; shoe making, tailoring, weaving and soap making were not provided as part of leprosy control. Many

Table 4: Distribution of Respondents by their opinion on whether Social and Economic Rehabilitation is a component of Leprosy Control in their Area.

Response	Frequency	Percent
Yes	282	25.5
No	729	66.0
Don't know	93	8.4
Total	1104	100

Source: Field Survey, 2010.

Table 5: Distribution of Respondents by their opinion on Rehabilitation Strategy adopted by Leprosy Control Programme

Response	Frequency	Percent	
Institutional (colonies based)	670	60.7	
Community based	262	23.7	
All of the above	79	7.2	
None of the above	93	8.4	
Total	1104	100	

Source: Field Survey, 2010.

of the respondents (68.4%) equally stated that there were no community based supportive activities aimed at rehabilitation of patients and stigma reduction. These responses reveal the lapses of the control programme in the two states in the area of SER of persons affected by leprosy. The high negative responses to SER variables were however not fully corroborated by IDI participants. More than half of the IDI participants, particularly health workers enumerated efforts at rehabilitation of patients but accepted that a lot still needs to be done. An IDI respondent from Anambra state reported thus- There is a Community Based Rehabilitation (CBR) Committee in Anambra state. The German Leprosy Relief Association (GLRA) pays about 12 persons affected by leprosy a monthly welfare support of N2000. Two (2) dependants are also currently benefiting from educational support from GLRA. The respondent also recounted that financial support (loan) to the tune of N10,000 for trading or farming was provided in the past but regretted that patients did not repay such loans to enable others to benefit.

On their part, male and female FGD participants at Mile 4 Hospital Abakaliki recounted promises made toward their social and economic rehabilitation. They however maintained that such promises are yet to materialize. Male and female FGD participants at Fr Damian TB and Leprosy Hospital, Nnewi/Amichi in Anambra state also decried the absence of SER programme for them. They maintained that they depend on donations of people of goodwill to subsist.

(d) Research Question 2: What are the perceived outcomes of social and economic rehabilitation of persons affected by leprosy in Anambra and Ebonyi states?

Data relevant to the research question are reflected in the bar chart (Figure 2) and Table 6 next page.

The chart above shows that most of the respondents (66.1%) assessed SER component of the leprosy control programme in Anambra and Ebonyi states as unsuccessful. This suggests high neglect of SER activities in leprosy control in the area. However, more respondents from Ebonyi state (88%) subscribed to the opinion that SER was unsuccessful as against 44.1% from Anambra state who shared similar views.

Table 6 below summarizes other findings on perception of outcome of SER activities. Again, the table shows high negative responses to five SER outcome variables examined. The situation points to the magnitude of unmet expectations of respondents in the area of social and economic rehabilitation of victims of leprosy.

The FGD results agree to a large extent with the above table over poor SER outcomes. The opinion of a female FGD participant at Fr Damian TB and Leprosy Hospital, Nnewi summarizes FGD data on SER outcome in both states is as follows -'We have not benefited anything except free drugs. Others are but promises. I look forward

to when I shall not be called all sorts of names and be truly accepted and seen as a human being in my community; when my ulcer and deformed fingers are disregarded and I could shop with money earned from my work and not from begging. I beg out of frustration. I dislike it'.

On their part, many IDI participants spoke of some limited level of success in SER activities. An IDI respondent from World Health Organization's (WHO) Zonal Office at Enugu clarified as follows- 'WHO has no direct SER programme for persons affected by leprosy. However, she (WHO) collaborates with partners to provide cash stipends, vocational training and prosthesis'. The respondent however noted that funding for SER is low, and that SER has not made much impact in leprosy control due to incomprehensive data base on patients' needs. Above all, the respondent lamented that many leprosy patients were already disadvantaged before starting treatment and SER cannot reverse their situation.

The negative perception of SER outcome cannot be totally divorced from impediments posed by limited funds and poor capacity of health workers. Late commencement of treatment and its associated lifelong disabilities (present even after completing treatment) cast further doubts about any serious plan for prevention of disabilities (POD). POD which is a key component of SER appears to be weak in the two states. In the context of weak POD, the public opinion is that nothing has improved as long as disabilities remain with patients. The situation is compounded by the absence of corrective surgery facilities for persons affected by leprosy at the leprosy clinics. The researcher also recognizes that weak rehabilitation plan may have contributed to the emergence of co-operatives involving persons affected by leprosy in their attempt to help themselves. More than two-thirds of the respondents (70.9%) acknowledged the existence of such co-operatives which serve as coping mechanisms to life challenges posed by leprosy.

(d) Research Question 3: How do people of Anambra and Ebonyi States of Southeast Nigeria perceive the level of funding for social and economic rehabilitation of persons affected by leprosy in their area in terms of its adequacy?

From Table 7 (page 31) it could be seen that there is no significant difference in the mode of assessment / perception of funding for leprosy control activities across the two states. Almost an equal number of respondents from both states saw funding for leprosy control as inadequate. This suggests that funding problem remains a common handicap to leprosy control in both states.

Discussion of findings

From the analysis of field data, it was observed that leprosy was considered a serious skin related health problem in the area studied. This is consistent with findings in a previous study by Nicholls (2000). The medical and social problems associated with leprosy have also been well documented by scholars (see Federal Ministry of Health, FMOH 1997;

Figure 2: Respondents Assessment of Social and Economic Rehabilitation (SER) Activities of Persons Affected by Leprosy in their Community

How would you assess social and economic rehabilitation activities of persons affected by leprosy in your community?

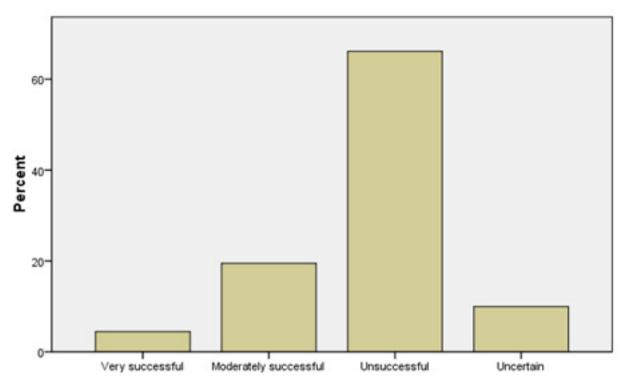


Table 6: Distribution of Respondents by their Assessment of Outcomes of SER Activities in Leprosy Control

SER Outcome Variable	Response	Frequency	%
Assessment of SER Activities	Very Successful	49	4.4%
	Moderately successful	215	19.5%
	Unsuccessful	730	66.1%
	Uncertain	110	10%
	Total	1104	100%
Any Improvement in Self-	Yes	104	9.4%
Sustenance and Economic	No	959	86.9%
Empowerment after Treatment	Don't know	41	3.7%
	Total	1104	100%
Acceptance of PAL by Family	Yes	103	9.3%
and Community during and	No	980	88.8%
after Treatment	Don't know	21	1.9%
	Total	1104	100%
Level of Effectiveness of Post-	Very Effective	35	3.2%
Treatment Integration Process	Effective	96	8.7%
of PAL	Ineffective	818	74.1%
	Very Ineffective	111	10.1%
	Uncertain	44	4.0%
	Total	1104	100%
Is Stigma of Leprosy	Yes	208	18.7%
Decreasing in your	No	871	78.9%
Community?	Uncertain	10	.9%
	Don't know	17	1.5%
	Total	1104	100%

Source: Field Survey 2010.

Table 7: Distribution of Respondents according to State of Origin and their Assessment of Level of Funding for Leprosy Control Programme

State	Assessment of Level of Funding of Leprosy Control Programme				Total
	Very Adequate	Adequate	Inadequate	Don't know	- 8
Anambra	20 (57.1%)	80 (53.7%)	424 (48.5%)	25 (55.6%)	549(49.7%)
Ebonyi	15 (42.9%)	69 (46.3%)	451 (51.5%)	20 (44.4%)	555(50.3%)
Total	35 (100%)	149 (100%)	875 (100%)	45 (100%)	1104(100%)

X2 = 2.883, df = 3, p = .410

Sofola 1999, Ogbeiwi 2005, Rafferty 2005 etc).

The fact that there was very poor performance of social and economic rehabilitation (SER) component of leprosy control in the two states was a major finding. This area is certainly the weakest aspect of leprosy control in the two states. Most study participants responded negatively to the issue of availability of SER activities and to five SER outcome variables that were examined. Such poor performance of SER component is a departure from the submissions of both Smith (2000) and WHO (1999). They have held that SER should actually be a priority in leprosy control projects. The respondents in this study were of the opinion that vocational training, stigma reduction, economic empowerment and acceptance of PAL by community have all failed to materialize as envisaged. The finding of this study with respect to SER is also totally at variance with those of Nash (2001) who held that SER had attained significant levels of success in Nigeria or that patients had fitted into new economic roles that won them social acceptance and respect. The disconnect in findings between the present study and that of Nash (2001) could be explained by the time lag between the two studies and the fact that Nash focused on Northern Nigeria while the present study was located at the Southeast zone. Above all, institutional (colony based) rather than community based rehabilitation strategies were still being practiced with limited results. Factors accountable for the deplorable SER status-quo include belief systems, low public enlightenment, poor logistics, low knowledge, lack of funds, inadequate and non-enthusiastic health staff. There was also no strategy in place to ensure that rehabilitation takes on a multi-sectoral approach best suited for its operations. The situation was further compounded by the fact that the Social Welfare Department and other important agencies were, in the opinion of respondents, operating at a distance away from SER activities in leprosy control. The synergy and collaboration that ought to characterise their relationship was nonexistent. These observations on the state of rehabilitation of PAL in Anambra and Ebonyi states could be accountable for the conclusion drawn by Nigeria Television Authority (NTA, 2011) to the effect that rehabilitation of persons affected by leprosy is largely unaddressed in Nigeria.

The role of funding in leprosy control has been strongly emphasized by Anyam (2001) and Osakwe (2004).

This study affirmed their contentions but also revealed that most respondents actually saw the level of funding for leprosy control in Anambra and Ebonyi states, especially as applicable to SER, as inadequate. Many IDI respondents (health workers) reported poor budgetary allocation to leprosy control. Also, leprosy patients who were participants in the FGD sessions recounted severe financial difficulties which they experienced. These observations justify the position of the political economy framework that government often channel resources to maintenance of production to the neglect of core social goal of securing and improving health. A properly funded leprosy control programme will be responsive to both medical and economic needs of patients.

Conclusion and Recommendations

Based on the findings from the present study, the following recommendations can be made:

- 1. There is immense need to improve the level of community involvement, ownership and participation in the programme which is currently very low. The involvement of community leaders is a laudable step in this direction. In addition, the role of social groups like age-grades, women groups, clubs and faith-based associations will positively affect decisions toward ameliorating the effects of sociocultural factors on leprosy control programme. With the support and participation of the community, socio-cultural practices and beliefs that negatively affect leprosy control should be abolished /prohibited.
- 2. There is need for a holistic leprosy control programme which should include crucial components like social and economic rehabilitation and reintegration of persons affected by leprosy into their communities. Such a holistic package will ensure that persons affected by leprosy are properly treated. It will also ensure that they are economically empowered and remained socio-politically relevant despite their disease experience.
- **3.** Existing legislations should be enforced and new ones enacted to adequately protect persons affected by leprosy from all forms of stigmatization, discrimination, and violations of their fundamental human rights. Such measure of protection will encourage them to live normal lives devoid of social seclusion or withdrawal and to positively respond to their problem.

- **4.** There is immense need for inter-agency collaboration to meet the goals of leprosy control. The programme should liaise with National Poverty Alleviation/ Eradication Programme and the Social Welfare Department etc to address issues of poverty, welfare and social integration as they affect leprosy patients. The Ministry of Education at the three tiers of government should also be involved with a view to including leprosy as a subject of study in the curricula of schools. This is sequel to the finding that formal education generally has positive impact on leprosy control.
- **5.** Government at all levels should demonstrate strong political will and commitment toward leprosy control. This should be done through adequate funding, prompt release of budgeted sums, provision of infrastructure, logistics, training and motivation of leprosy control staff through prompt payment of entitlement and allowances.
- **6.** There should also be a synergy between donor agencies, non-governmental organizations, development partners and government departments involved in leprosy control. All channels of energy leakage, wasteful duplication of functions and confrontations should be blocked.
- 7. Because of observed negative impact of socio-cultural factors like belief system on leprosy control, there is immense need to enhance the capacity of health workers to understand socio-cultural factors related to leprosy. This could be achieved through on the job training to equip them about behaviour change techniques. Furthermore, social scientists that are likely to better understand and plan interventions against such socio-cultural dimensions should be part of leprosy control teams in the spirit of interdisciplinary co-operation and better results.

References

Adagba .K. (2011). Interview Granted to Nigerian Television Authority (NTA) to mark 50 years of Tackling Leprosy Problem in Nigeria, NTA Weekend File, 5th February.

Bryceson, A. & Pfaltzgraff, R.E. (1990). Leprosy. United Kingdom: Longman Group UK Limited.

Chukwu, J.N. (2004, April). Towards a Leprosy free Society: The Role of Tuberculosis and Leprosy Supervisors (TBLS). Being an Address Presented at the Quarterly Meeting of Anambra State Tuberculosis and Leprosy Supervisors Held at Local Government Hall, Amawbia, 5th - 7th.

Doyal, L. (1979). The Political Economy of Health. London: Pluto Press.

Durkheim, E. (1938). The Rules of Sociological Method. Glencoe: Free Press.

Eboh, W. (1999). Leprosy Control in Nigeria: Past, Present and Future, TBL Magazine and Photo Album. Zaria: Batch 21 TBLS Trainees.

Ekiti, P. (2010). Address to mark '2010 World Leprosy Day on theme - Justice: Fighting a just course' World Health Organization, Nigeria.

Erinosho, O.A. (2006). Health Sociology. Ijebu Ode: Bulwark Consult.

Ezekpeazu, J.I. (2000). Leprosy: Causative Organism,

Mode of Spread, Signs and Symptoms, Diagnosis, Differential Diagnosis, Classification and Treatment. Paper Presented at World Leprosy Day Conference Held at Madonna University, Okija, 9th - 11th Feb.

Federal Ministry of Health, Department of Primary Health Care (1997). National Tuberculosis and Leprosy Control Programme (NTBLCP), Workers' Manual, 2nd Edition.

Federal Ministry of Health, Department of Public Health (2004). National Tuberculosis and Leprosy Control Programme (NTBLCP) Workers' Manual, 4th Edition.

Grand, A.L. (1997). Women and Leprosy: A Review. Leprosy Review, 68, 203 - 211.

Hahn, R.A. (1999). Anthropology in Public Health: New York: Oxford University Press.

Haralambos, M., Holborn, M. & Heald, R. (2004). Sociology: Themes and Perspectives. London: Harper Collins Publishers.

http://en.wikipedia.org/wiki/phenomenologicalsociology Retrieved 15th May, 2009.

Ifemesia, C. (1979). Traditional Humane Living among the Igbo: An Historical Perspective. Enugu: Fourth Dimension Pub. Co. Ltd.

Kaufmaun, A., Neville, J. & Mariam, S.G. (1993). The Social Dimension of Leprosy. London: TALMILEP

Kaur, H., & Ramesh, V. (1994). Social Problems of Women Leprosy Patients: A Study at Two Urban Leprosy Centres in Delhi. Leprosy Review, 65, 361 - 375.

Khulmann, E. (2009). From Women's Health to Gender Mainstreaming and Back Again: Linking Feminist Agencies and New Governance in Healthcare. Current Sociology, 57(2), Monograph 1, 135 - 154.

Lemert, E.M. (1951). Social Pathology. New York: McGraw Hill Book Co.

Lockwood, D. (2000). Consequences of Leprosy and Socio-Economic Rehabilitation. Leprosy Review, 71(4), 417 - 419.

Macaden, V.P. (1996). An Introduction to Community Based Rehabilitation in Leprosy. Partners Magazine for Paramedical Workers. 1 (30), 3 - 5.

Mgbenwelu, L. (1999). An Opening Address on the Occasion of the Training of Health Workers on Leprosy Care at Ihiala Local Government, 15th October.

Naidoo, J., & Wills, J., (2001). Health Studies: An Introduction. New York: Palgrave Publishers.

Nash, J. (2001). What is Rehabilitation. Partners Magazine for Paramedical Workers in Leprosy, 1 (38), 3-7

National Population Commission (2006). 2006 Population and Housing Census of the Federal Republic of Nigeria. National and State

Population and Housing Tables (Priority Tables Vol.1)

Navara, V. (1979). Medicine under Capitalism. London: Crown Helm.

Nicholls, P.G. (2000). Guidelines for Social and Economic Rehabilitation. Leprosy Review, 71, 422 - 465.

Nigeria Television Authority (2011).50 years of Tackling Leprosy Problem in Nigeria, NTA Weekend File' 5th Feb. Nwala, T.U. (1985). Igbo Philosophy. Lagos: Literame

Publishers Ltd.

Nwankwo, I.U (2010). Alienation and Suicidal Tendencies among Leprosy Patients Anambra State. Practicum Psychologia, 2(2), 40-48.

Nwankwo, S.N. (2006). Compliance Status of Multiple Drug Therapy (MDT) By Leprosy Patients in Imo State from 2000-2004. Unpublished Postgraduate Diploma Thesis, Imo State University, Nigeria.

Nwosu, H.N. (2002). Politics and Administration of Igbo Traditional Society. In Ofomata, G.E.K. (Ed.). Survey of the Igbo Nation. Onitsha: Africana First Publishers Ltd. Ogbeiwi, O.I. (2005). Progress towards the Elimination of Leprosy in Nigeria: A Review of the Role of Policy Implementation and Operational Factors. Leprosy Review, 76(1), 65 - 76.

Ogoegbulem, S.A. (2000, February). Forging New Partnerships for Effective Leprosy Control. Paper Presented at a Three Day National Workshop to Commemorate World Leprosy Day, Held at Madonna University Okija, 9th - 11th.

Olisa, M.S.O. (2002). Igbo Traditional Socio-Political System. In Ofomata, G.E.K. (Ed). A Survey of the Igbo Nation. Onitsha. Africana First Publishers Ltd.

Onokala, P.C. (2002). Trade and Transport. In Ofomata, G.E.K(ed). A Survey of the Igbo Nation. Onitsha: Africana First Publishers Ltd.

Osakwe,C. (2004, April). Pre-requisites for an Effective Tuberculosis and Leprosy Control Programme. An Address Presented at the Quarterly Meeting of Anambra State Tuberculosis and Leprosy Supervisors Held at Local Government Hall, Amawbia. 5th - 7th.

Pearson, J.M.H (1988). Essentials of Leprosy. India: German Leprosy Association and TALMILEP.

Rafferty, J. (2005). Curing the Stigma of Leprosy. Leprosy Review, 76(2), 119 - 126.

Rao, .S., Garole, .V. & Walawalker, .S. (1996). Gender Differentials in the Social Impact of Leprosy. Leprosy Review, 67, 190-199.

Ridley, D.S., & Jopling, W.H., (1966). Classification of Leprosy According to Immunity. International Journal of Leprosy, 34, 255 - 273.

Robinson, .I. (1990). Personal Narratives, Social Careers and Medical Courses. Social Science and Medicine, 1173 - 1186

Schaefer, R.T., & Lamm, R.P. (1997). Sociology: A Brief Introduction. USA: The Mc Graw-Hill Companies Inc. Scott, J. (2000). The Psychosocial Needs of Leprosy Patients. Leprosy Review, 71(4), 486 - 491.

Shlomo, A. (1968). Socio-Political Thought of Karl Marx. London: Cambridge University Press.

Srivinasan, H. (1999). The Problem and Challenge of Disability and Rehabilitation in Leprosy. Article retrieved April 20, 2009 from http://www.cefpas.it/leprosy/disabilities/Doc Rehabilitation.htm

Smith, C. (2000). Leprosy after the Year 2000. Partners Magazine for Paramedical Workers, 1(37), 3-6.

Sofola, O. (1999). Leprosy Elimination Campaigns: The Nigerian Experience. Leprosy Review, 70, 465 - 471. Turner, J.H. (1978). The Structure of Sociological Theory.

Turner, J.H. (1978). The Structure of Sociological Theory Homewood Illinois: The Dorsey Press.

Uzozie, L.C. (2002). Igbo Concepts and Beliefs about Land. Its Classification and Tenurial System. In Ofomata, G.E.K.(Ed.). A Survey of the Igbo Nation. Onitsha: Africana First Publishers Ltd.

Valsa, A. (1999). Psychological Aspects in Leprosy. Partners Magazine for Paramedical Workers in Leprosy, 2(36), 14 - 16.

Valencia, L.B. (1989). Social Science Research on Social Dimensions of Leprosy: Where are we going from here? International Journal of Leprosy, 57, 847 - 863.

Warndorff, D.K. & Warndorff, J.A. (1990). Leprosy Control in Zimbabwe. From a Vertical to a Horintal Programme. Leprosy Review, 61, 183 - 187.

World Health Organization. (1982). Chemotherapy of Leprosy for Control Programmes. World Health Organization Technical Report Series, 675. Geneva: World Health Organization.

World Health Organization. (1985). Epidemiology of Leprosy in Relation to Control. World Health Organization Technical Report Series, 716. Geneva: WHO.

World Health Organization. (1988).A Guide to Leprosy Control (2nd Ed.). Geneva: World Health Organization. World Health Organization. (1999). Elimination of Leprosy Status Report (Draft). Geneva: World Health Organization.

World Health Organization.(2000). Guide to Eliminate Leprosy as a Public Health Problem (1st Ed.). Geneva: World Health Organization.

World Health Organization. (2002). Integrating Gender Perspectives in the Work of WHO. Geneva: World Health Organization.

World Health Organization. (2008). Weekly Epidemiological Record, 33, 293 - 300. Retrieved 15th December, 2008 from http://www.who.int/wer World Health Organization. (2010). New Case Detection and Prevalence, 2005 - 2008 for South-east Zone of Nigeria. WHO South-east Zonal Office Enugu. Yawalker, S. J. (1994). Leprosy for Practioners (5th ed.). Bombai: Popular

Prakashan.