



## **Historical Perspectives on Leprosy Control in Nigeria: Problems and Prospects**

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### **Introduction**

The word 'Leprosy' was derived from a Greek word 'Lepros' which means scaly (Ezekpeazu, 2000). Nigeria's Federal Ministry of Health (FMOH, 2004) defined leprosy as a chronic, infectious disease that mainly affects the skin, peripheral nerves and mucous membrane of upper respiratory tract caused by *Mycobacterium leprae*.

Stiger, Geus and Heyender (2000), taking a clue from Robinson (1990) explained leprosy in three related terms as disease (bio medical perception), illness (self-perception) and sickness (social perception). They opined that in the tripartite, it is the term "sickness" (social perception) that reflects the social stigma. Valencia (1989) summed up the argument when he posited that while the 'illness' leprosy is experienced by the person and shaped by social and cultural influences; the 'sickness' leprosy encompasses the problem as perceived and named by the society, expressed into social stigma.

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 rejected in many societies.

Although the disease seldom kills (Bryceson and Pfaltzgraff 1990), it remains a major public health problem and cause of morbidity especially in developing countries like Nigeria. Leprosy is one of the leading causes of permanent disability worldwide (Lockwood, 2000). The disease has over the years left a terrifying memory both in history and in human society of mutilation, rejection and social exclusion (World Health Organization, W.H.O, 1994). This is because the visible deformities caused by leprosy result in intense social stigma and discrimination against



victims and their families. Thus, the social and physical consequences of leprosy are very devastating.

### Magnitude of Leprosy Problem: Global, African and Nigerian Situation

According to Meima, Richardus and Hebbema (2004), leprosy cases detected globally each year have declined considerably since 1985. Nonetheless, with a total of 212,802 cases of leprosy worldwide in 2008 (WHO, 2008), a lot still needs to be done in order to control the threat of leprosy to public health. In 1997, Nigeria’s Federal Ministry of Health (FMOH, 1997), reported that over 80% of all leprosy cases are concentrated in only six countries of the world. These are India, Brazil, Bangladesh, Indonesia, Myanmar and Nigeria. The list is in the order of magnitude of reported leprosy cases.

### Leprosy Situation in Countries with High Leprosy Burden across W.H.O Regions (At the Beginning of 2008)

Position in Region	Africa	Americas	South-East Asia	Eastern Mediterranean	Western Pacific
1 <sup>st</sup>	Rep. of Congo 6502	Brazil 48847	India 87 228	Egypt 1592	China 3196
2 <sup>nd</sup>	Nigeria 5381	Venezuela 1681	Indonesia 21 430	Sudan 940	Philippine 2279
3 <sup>rd</sup>	Ethiopia 4611	Mexico 720	Bangladesh 4463	Pakistan 856	Malaysia 681
4 <sup>th</sup>	Mozambique 1830	Paraguay 414	Nepal 3329	Yemen 486	Vietnam 521
5 <sup>th</sup>	Madagascar 1591	Dominican Rep.327	Myanmar 2892	Iran 182	Korea 363
6 <sup>th</sup>	Angola 1218	Ecuador 195	Sri Lanka 1494	Somalia 114	Cambodia 257
<b>Total</b>	<b>21 133</b>	<b>52 184</b>	<b>120 836</b>	<b>4 170</b>	<b>7 297</b>

**Source:** World Health Organization (W.H.O 2008). Weekly Epidemiological Record. No. 33, 2008; 83, 293-300.

Currently, Nigeria’s leprosy burden ranks her in 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). The registered prevalence of leprosy as at 2002 was 5890 (FMOH, 2004) but it declined to 5381 by the beginning of 2008 (W.H.O, 2008). It has further declined to 3913 cases in 2010 (Adagba, 2011). However, Ezekpeazu (2000) estimates that there were high incidences of unreported cases in the country. The prevalence rate of the disease in the country stood at 0.5 per 10,000 population as at the end of 2003 (Ogbeiwi, 2005). In addition to the active cases of



leprosy that may be at various stages of their treatment, there are many others who are clinically cured but still suffer some physical and social consequences of the disease. Such consequences may include rejection by their families, significant others, community and labour market.

### **Historical Background of leprosy in the World**

The problem of leprosy in the world preceded the days of Jesus Christ. The disease was also a major health problem during the time of Christ (see Luke 17 verse 11-19). Rees (1994), notes that leprosy is certainly one of the oldest scourges of mankind.

The history of the disease could be approached from two related and complimentary perspectives namely, written history and search for absolute evidence. From the standpoint of literary history (written records), the earliest accurately written record describing true leprosy were preceded by oral traditions some of which were far too vague to bear the weight of precise identification with leprosy ( Browne,1989 ).

Ezekpeazu (2000) observes that although the causative organism of leprosy was discovered only in 1873 by Norwegian doctor named Armaeur Hansen, the disease (which is also called Hansen's disease after him) probably originated several centuries ago in India. He (Ezekpeazu) maintained that the first authentic description of different types of leprosy and their treatment with Chaulmuogra oil was documented in a treatise written in India around 600BC by an eminent surgeon named Sushruta. The Indians called leprosy 'Kushta'.

In China, leprosy was first recorded in Neiyng, one of the earliest Chinese medical classics around 400BC (Green, 1994)..Browne (1989) posits that from India leprosy spread to China in about 500 BC from where it spread to Japan. He noted that the earliest Japanese reference to leprosy were from the 11<sup>th</sup> century BC.

The second approach to history of leprosy is the search for initial absolute evidence of the disease in human society. It showed that the earliest absolute, indisputable and objective evidence of leprosy (specifically bone involvement in leprosy) was found in an Egyptian mummy of the second century BC, and later in two Coptic Christian mummies found at a burial ground at El-Bigha in Upper Egypt around 5<sup>th</sup> century AD (Brycesson and Pfaltzgraff, 1990; Browne 1989).



Leprosy was confirmed in the aforementioned mummies after bones of their extremities (hands and feet) and skull were examined by experts and they showed evidence of mutilating leprosy (see Smith and Dawson 1924; Browne, 1989)

The earliest written records and the objective evidence of leprosy as accounted above suggest that India (Asia) and Africa (Egypt) vie for the position of the cradle of leprosy in human society. Nonetheless, the possibility of bifocal or multi focal origin of the disease cannot be ruled out and constitutes a subject for further research.

According to Waters (1997), leprosy was probably brought to Mediterranean region by the soldiers of Alexander the Great of Greece returning from their Indian campaign in 327 – 326BC. He observes that the disease then spread slowly through the Greek and Roman empires where leprosy hospitals were established by Christians in Rome and Caesarea in the 4<sup>th</sup> century AD. He observes also that the disease later spread into Western Europe, reached epidemic proportions around 12<sup>th</sup> – 13<sup>th</sup> century AD and then slowly declined.

In addition to the account on evidence of leprosy in Egyptian mummies, Yawalker (1994) strongly argues that the disease probably spread to Africa during the middle ages from the East along the trade routes. Unfortunately, Africa's leprosy burden is still relatively high unlike their counterparts in Western and Northern Europe where the disease has become non-existent. Africa's leprosy burden also surpasses the low level of the disease in Eastern and Southern Europe, but is less than the figures for the Asian continent.

### **The History of Leprosy Control in Nigeria**

Eboh (1999) traced the history of leprosy control in Nigeria and identified three major periods. They are the pre-Dapsone era (1900-1947) when there was no organised programme/treatment; the Dapsone era (1948-1985) when Dapsone was the drug of choice; and the Multi-Drug Therapy era (1986 till date). He described the three periods as follows;

- a. **The Pre-Dapsone Era (1900 – 1947)** – It was a dark age in leprosy control in Nigeria when there was no cure for the disease. Isolation of victims in jungles was practiced. The patients lived in such jungles until they died. Several other forms of degradation also characterised the era. Arrival of missionaries in 1920s led to establishment of segregated leprosy settlements which became the first forms of organised leprosy



control in Nigeria. Notable ones are Uzuakoli in the East; Ossioma and Iberekodo in the West; Zaria, Katsina and Garkida in the North.

- b. The Dapsone Era (1948 – 1985):** Following organised leprosy control started by missionaries in 1920, Dapsone was first used for treatment of leprosy in Nigeria in 1948. This was at Uzuakoli Leprosy Settlement now in Abia State. The drug was also used for mass treatment on out-patient basis in 1953. The Dapsone regimen however became ineffective with time due to development of resistant strains which became a global problem.
- c. Multi – Drug Therapy (MDT, 1986 to Date) Era:** This era followed recommendation of MDT by WHO Study Group in 1981.

Although MDT use became a policy of Federal Ministry of Health in 1983, use of the drug by missionaries in Nigeria became very noticeable from 1985 (Eboh, 1999). It was however in 1991 during the inauguration of National Tuberculosis and Leprosy Control Programme that MDT was introduced nation wide (FMOH, 1997). This set the stage for 100% MDT coverage of all leprosy patients in Nigeria which was attained in 1995.

### **The National Tuberculosis and Leprosy Control Programme Era:**

#### **Aims, Achievements, Problems and Prospects**

The attempt to address her leprosy problems pursuant to the 44<sup>th</sup> World Health Assembly (WHA) Leprosy Elimination Goal led to the establishment of National Tuberculosis and Leprosy Control Programme (NTBLCP) in Nigeria in 1988. The programme was however formally launched by President Ibrahim Babangida in 1991. From inception, the programme was anchored on primary healthcare approach geared at facilitating widest coverage and affordability. The package involved a co-ordinated, time-bound and goal-oriented plan of action for leprosy control through- out Nigeria.

Ogbeiwi (2005) summed up the aims of the National Leprosy Control Programme as follows:



- i. To reduce leprosy prevalence to a level where it is no longer a public health problem;
- ii. To detect leprosy patients in early stages of the disease and provide comprehensive care to them.
- iii. To provide multi-drug therapy (MDT) for all patients as provided by World Health Organization (WHO).
- iv. To prevent disabilities associated with leprosy; and
- v. To reduce social and psychological stigma associated with the disease.

Following its establishment, the National Leprosy Control Programme secured the support of stake holders like World Health Organization (WHO), International Federation of Anti-Leprosy Associations (ILEP), development partners and voluntary associations for effective implementation (FMOH, 2004). The three arms of government, corporate bodies and communities as major stake holders were equally sensitized by programme officers.

The federal, state and local governments became partners in progress in the implementation of the national leprosy control blueprint. Each tier of government has strategic responsibility in this regard. For instance, the federal government is responsible for policy formulation, planning, organization, periodic review and evaluation of the programme. She also provides financial and technical support for procurement of drugs, reagents, transport and other materials for the programme.

The state governments supervise operational activities at local government level and undertake capacity building, resource and community mobilization services. The local governments are the operational unit or what Osakwe (2004) called 'the main theatre of action' for leprosy control in Nigeria. Due to their relative closeness to the grassroots, local governments are charged with the responsibility for case detection and rehabilitation of persons affected by leprosy (FMOH, 2004).

The effectiveness of different local governments in the discharge of this responsibility varies according to several factors which could be socio-cultural, economic and political etc. These include quality of supervision, resource mobilization and capacity building of staff engendered by the state. The level of political commitment, referral services, co-operation with national and international agencies as well as experience and motivation of health staff are also of crucial importance for attainment of successes in leprosy control by local and state



governments (FMOH, 2004). Provision of adequate funding is also crucial for the success of leprosy control at local government, state and federal levels. Unfortunately, most of these requirements are still below expectation and constitute the major problems of the control programme.

Nonetheless, Ogbeiwi (2005) and Sofola (1999) outlined some of the modest achievements of national leprosy control programme in Nigeria as follows:

- i. Achievement of 100% MDT coverage in December 1995.
- ii. Establishment of leprosy control programmes in all states by the end of 1996.
- iii. Attainment of W.H.O elimination target of less than 1 case per 10,000 populations at national level in 1998. Nigeria is now considered a low endemic country.
- iv. Adoption of uniform guidelines, reporting system and classification of various aspects of leprosy.
- v. Successful conduct of Leprosy Elimination Campaign (LEC) and Special Action Programme for Elimination of Leprosy (SAPEL) in parts of the country.
- vi. Advances in integration of leprosy control into the general healthcare.

Sofola (1999) however observes that Nigeria's leprosy control programme is relatively young when compared to those of Myanmar, Indonesia and Zimbabwe which commenced in 1952, 1969 and 1983 respectively. According to her the programme has recorded minimal success in the areas of social and economic rehabilitation, reduction of stigma and integration of those affected into their communities. Cases with deformities have also not reduced significantly due to late detection and poor compliance to treatment. All these require concerted effort of stakeholders until leprosy is effectively controlled in the country.

### **The Role of International Donor Agencies in Leprosy Control in Nigeria**

With exception of the pre-dapsone era, the successes of Nigeria's Leprosy Control are attributable to the active participation of International Donor Agencies most of whom started giving support to the Missionaries and public institutions involved in leprosy projects since the 1970s.

Their technical assistance and logistic support for implementation of leprosy control programme in Nigeria is largely responsible for the reduction of point prevalence of leprosy



from about 200,000 cases in 1989 to 8,134 in 1999. And from 8,134 cases in 1999, to 5381 in 2008, It finally came down to 3913 cases in 2010 (Adagba, 2011). The International Donor Agencies involved in Leprosy Control in Nigeria include:

1. **The Netherlands Leprosy Relief Association (NSL)**

They are supporting 13 states mostly in Northern part of the Country. The states include- Adamawa, Bauchi, Benue, Borno, Jigawa, Kaduna, Kano, Katsina, Plateau, Taraba, Yobe, Kogi and Nasarawa.

2. **German Leprosy Relief Association (G. L. R. A)**

They are supporting 14 States mostly in the East.

The states include- Abia, Anambra, Cross River, Delta, Edo, Enugu, Imo, Ebonyi, Bayesa, Akwaibom, Ondo, Ogun and Rivers.

3. **The Leprosy Mission International (TLMI)** They are supporting 8 States which includes Sokoto, Zamtara, Kebbi etc.

4. **Damien Foundation of Belgium (DFB)** they support Oyo and Osun States.

5. **Sasakawa Memorial (Health Foundation of Japan)** is supporting one state.

6. **World Health Organization** provides technical support to the entire country.

**What the Donor Agencies Do:-**

- They provide and maintain various forms of transport (vehicles of all types) to the states they support for project use.
- They provide anti-leprosy drugs, MCR sandals, Crutches, Sunglasses, etc for patients.
- They sponsor Leprosy workers for foreign and local training to up-date their knowledge.
- They provide books, journals, posters, handbills, including various reporting forms on leprosy.
- They ensure the compilation of various statistics on leprosy which help us to know the current disease level in Nigeria.



- They provide fund for specific projects aimed at leprosy control (e.g. surveys, public awareness campaign).
- They influence government to undertake control measures against leprosy.

Ogbeiwi (2005) outlines some of the factors relevant to improved level of performance of Nigeria's leprosy control programme (most of which are supported by donor agencies) as follows:

- Capacity building activities for general health staff and specialized staff in leprosy.
- Procurement of necessary logistics
- Development of uniform health information formats for the entire country
- Support from international donor agencies and World Health Organization (WHO).
- Conduct of Leprosy Elimination Campaign (LEC) and Special Action Programme for Leprosy Elimination (SAPEL) in some states.
- Implementation of monthly multi-drug therapy (MDT) at Primary health care level including case holding activities.
- Intensive awareness creation/community health education campaigns

### **The Way Forward: Challenges before the Three Tiers of Government in Nigeria**

The donor agencies have performed excellently well and deserve the commendation of all Nigerians. The three tiers of government should complement their effort by increasing their support and commitment to leprosy control. The regular breach or non fulfillment of roles assigned to government under the various Memoranda of Understanding signed with donor agencies is most unfortunate. This gives the impression that government in Nigeria is not taking the problems that affect her people serious.

The situation where some state and local governments cannot fuel vehicles provided by donor agencies for leprosy control is sad. The authors join the former Minister of Health, Dr. D. S Tafida (1994) to ask all tiers of government to work in concert and allocate adequate funds for Leprosy Control. This is important because Nigeria cannot rely solely on donor agencies to solve problem that affect her people.

Each tier of government despite availability of lean finances should endeavour to perform satisfactorily those duties assigned to her under the National Tuberculosis and Leprosy Control Programme (NTBLCP). This is to ensure efficient case detection, chemotherapy, case- holding,



health education, and disability prevention and rehabilitation services. All of these will facilitate leprosy elimination and eradication.

The National TBL Co-coordinator, State TBL Control officers and Local Government TBL Supervisors are enjoined not to relent in their efforts to attract continued government attention to leprosy problem in Nigeria. The country's position as the fifth country in the world with large number of leprosy patients is not a credit to us. It calls for greater involvement of the three tiers of government and the devotion to duty of all health workers to reverse the situation.

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