

National Tuberculosis and Leprosy Training Center, Zaria



Annual
report
2008

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Abbreviations

Abbreviation	Meaning
AFB	Acid-Fast Bacilli
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
CHEW	Community Health Extension Worker
CHO	Community Health Officer
CDC	Centre for Disease Control
FMOH	Federal Ministry of Health
GLRA	German Leprosy Relief Association
HIV	Human Immunodeficiency Virus
HCT	HIV/AIDS Counselling and Testing
IC	Infection Control
IHVN	Institute of Human Virology Nigeria
LGA	Local Government Area
LGTBLS	Local Government Tuberculosis and Leprosy Supervisor
M&E	Monitoring and Evaluation
MDR	Multi-Drug Resistance
MO	Medical Officer
NLR	Netherland Leprosy Relief
NTBLCP	National Tuberculosis and Leprosy Control Program
NTBLTC	National Tuberculosis and Leprosy Training Centre
PLWHA	Persons Living With HIV/AIDS
PTB	Pulmonary Tuberculosis
STBLCO	State Tuberculosis and Leprosy Control Officer
TB	Tuberculosis
TBCAP	Tuberculosis Control Assisted Program
TBL	Tuberculosis and Leprosy
TLMN	The Leprosy Mission Nigeria
USAID	United State Agency for International development

1 Background

1.1 Introduction

The National Tuberculosis and Leprosy Training Centre, Zaria is about four kilometers from Zaria town, along the old Zaria – Kaduna road, popularly called ‘layi.’ The Centre was established in January, 1991 as a human resource development centre for the National TBL Control Programme (NTBLTCP).

1.2 Functions of the centre

The centre has the following responsibilities:

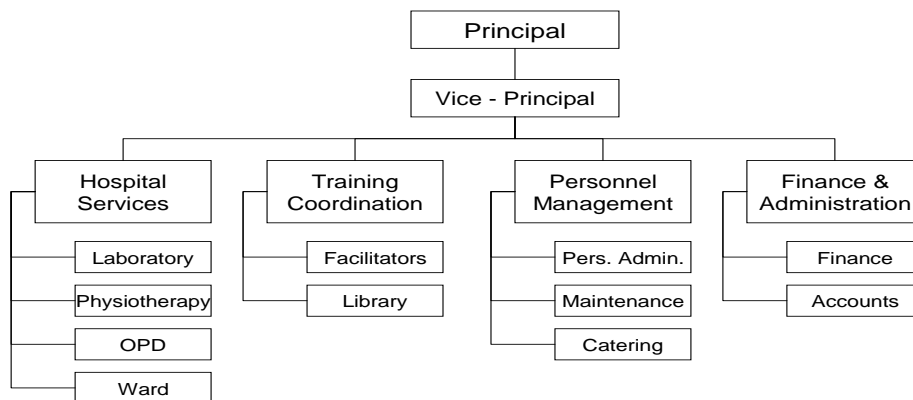
- Training of manpower for the National TBL Control programme (NTBLCP).
- Referral hospital for TB & leprosy cases
- Provides an integrated TB/HIV diagnosis, treatment, care and support.
- Development of training materials and guidelines
- Operational research relating to TBL.

1.3 Administration

1.3.1 Organogram

The following is the organogram of the centre:

NTBLTC Organogram:



1.3.2 Staffing

- Medical Officer 7 (3 are working on part-time staff)
- Personnel officers 2
- Accountants 3
- Clerical Account staff 2
- Community Health Officer 8
- Community Health Assistant 8
- Nurses 13

- A medical laboratory scientist, 2 scientific officers, 1 medical lab technician and 2 medical lab assistants.
- Pharmacist 2 (one part time)
- Junior staff (cleaners, security, health attendants etc) 90

1.3.3 Partners

Major collaborative partners are as follows:

1. The Netherlands Leprosy Relief has been supporting the centre since early 80's in areas of capacity development, patient care, logistic support (drugs, vehicles, and computers) and provision of equipments and maintenance. NLR also provides technical support to training activities.
2. Institute of Human Virology (IHVN) – ACTION Project. The collaboration with IHVN is in the areas of HIV, TB/HIV diagnosis, treatment, care and support. It is also a major partner in the national effort to control MDR/XDR-TB. Culture and DST facility as well as PCR laboratory facilities for TB and HIV diagnosis are major areas of support.
3. Centre for Disease Control and Prevention: Technical and Laboratory support is received directly and through the Institute of Human Virology (IHVN) – ACTION Project.
4. Tuberculosis Control Assisted Program (TB CAP) supports the centre under its institutional capacity building project, to become a regional training centre for Anglophone countries. TB CAP also supports the strengthening of the pre-service training in medical and para-medical schools.
5. Abt Associates' Health Systems 20/20 project provides technical assistance to build institutional capacity for Management and Leadership training at national and states levels.

2 Training

2.1 Infrastructure for training

The Training Department has the following facilities:

- classes (40- 60 participants capacity) and 1 auditorium(200-300 participants capacity)
- Facilitators' common room with wireless internet facilities
- Library with Audio-visual room/computer resource centre with wireless internet facility
- Hostel accommodation for 40 – 80 students at a time.
- Standard Cafeteria
- Sports and recreational facilities
- students buses

2.2 Material/tools development

The centre facilitated the development of various training manuals and work aids in collaboration with partners. The following documents are available:

- TB training module
- Leprosy training module
- TOT training modules for facilitators
- Data management and supervision materials
- Management and Leadership training modules

- TB/HIV work aids for TB/HIV collaborative activities at facility levels
- IMAI modules
- National guideline on infection control

2.3 Institutionalized training at NTBLTC Zaria

The following regular courses are conducted annually:

- Medical Officers Course
- Tuberculosis and Leprosy Supervisor's course
- TBL Refresher Course
- Hospital Staff course
- Supervision Course for State TBL control teams
- TBL Laboratory Course (includes HIV diagnostics)
- Prevention of Disability Course for Physiotherapist/physiotherapist Assistance
- International Course on Data Management and Supervision

In addition to the regular courses, the centre provides tailor made courses on behalf of various collaborating partners on the National Programme (example TB CAP, CEDPA, CHAN, GHAIN, IHVN-Action Project). The centre also participates in pre-service training of medical and nursing undergraduate students of schools of Health Technology, Nursing and Midwifery and Medicine in and around Zaria and Kaduna State in Leprosy, TB and HIV.

Outcome of training activities (2004-2008)

no	Course	2004	2005	2006	2007	2008
1	Local Government TB & Leprosy supervisors	57	42	62	68	75
2	Medical officer's/program managers	11	8	10	14	12
3	TB & Leprosy refresher course	12	14	61	43	38
4	Hospital staff (nurses and other general health workers)	29	28	19	15	13
5	Laboratory	20		36	21	38
6	POD					9
7	Data management and supervision					21

NB: For details of different courses by sponsors see annex 2.

Comments:

The number of trainees for LGTBLS course has been on the increase since 2004, which indicates high demand for the course. However that was not the case for refresher course as only few TBLS are coming for the course. This may be responsible for some of the weaknesses currently observed in the field. There are many challenges in the program, particularly, new initiatives implemented by the program that the TBLS are not fully educated about. Examples are PPM, CTBC, MDR and TB/HIV collaborative activities, 3Is and recording and reporting formats.

2.4 Training activities in the field

2.4.1 Field training: TB

The rapid expansion of DOTS on the National TB and Leprosy Control Programme and the resulting need to build capacity for these services necessitated the decentralization of training courses from the NTBLTC Zaria. In line with this strategic direction, the Training Centre coordinated and supported training of frontline health workers in the field. Most of these activities were undertaken in 17 states where DOTS services were weak. The training activities in these states were supported by USAID. It is important to note that some NGOs like NLR took advantage of these training workshops to sponsor additional one day training on leprosy. The Training centre collaborated with NLR to develop the materials for the one-day training on Leprosy suspects and referrals. In addition to the USAID-sponsored activities, various training activities of the Global Fund Round 5, Phase 1 were also supported.

2.4.2 Field training: leprosy

The NTBLTC in collaboration with NLR, conducted training of trainers workshops for state TBL teams. Technical support was also provided to field staff in Leprosy Control in the NLR assisted projects. The following are the output of the support.

States	Leprosy (3 days) and TB suspect & refer (1 day)	TBL suspect & refer (2 days)	Total participants per State
Adamawa	40	40	80
Bauchi	18	40	58
Benue	-	100	100
Borno	55	29	84

Gombe	45	69	114
Jigawa	25	25	50
Kaduna	28	-	28
Kano	53	71	124
Katsina	54	75	129
Nasarawa	29	32	61
Plateau	38	20	58
Taraba	54	25	79
Yobe	52	25	77
Total	491	551	1,042

Discussion: The center recommends similar trainings in the remaining parts of the country as it will facilitate the integration and sustenance of the leprosy services at the facility levels.

2.5 Major training activities in collaboration with partners/NGOs

2.5.1 NTBLTC as Regional Centre for Africa (International courses)

TBCTA is implementing a USAID funded program called TB Control Assistance Program (TB CAP) in the period 1 October 2005 – 30 September 2010, with KNCV Tuberculosis Foundation as the lead partner. The Training Centre collaborates with TB CAP and participates in the Institutional Capacity Building Project (ICB). The aim of the ICB is to provide internationally recognized training centres for mid- and high-level managers and technical staff in TB control. In 2008, the NTBLTC was designated as a Regional Training Centre for Anglophones Countries in Africa for TB Control.

The centre, with technical support from KNCV and MSH, developed international training materials and conducted the first international course with participation of TB and HIV Programme Managers from seven African Countries (Nigeria, Ghana, Gambia, Tanzania, Zambia, DRC and Kenya) in October 2008. There were 21 participants.

The training center supported TB CAP Nigeria in many of its activities, especially in developing training materials, guidelines and work aid on TB/HIV activities. Within same period 34 participants were trained as master trainers on TB/HIV collaborative activities, participants came

from TBL and HIV/AIDS programmes of 6 states (Abia, Zamfara, Yobe, Plateau, Ekiti and Kwara), others were from organizations like TLM, GLRA, NTBLCP, NASCP and NPO WHO/TB-CAP.

2.5.2 Improving pre-service training

One of the strategic directions of the centre is to improve the pre-service training of medical and para-medical institutions and also build their capacity for possible use by the National TBL Program at different levels. This activity started in 2006 with initial funding from the Netherlands Leprosy Relief. It was subsequently supported by TB CAP in 2008 in the following areas.

Medical training

In collaboration with the Medical and Dental Council of Nigeria, the TB & Leprosy content of the curriculum of medical schools was reviewed in 2007. Following the review the following materials were supplied the medicals schools via the council in 2008;

- WHO TB/HIV manual
- Leprosy in African
- ILEP guide 1 for diagnosis of leprosy

The council is now in the loop of material distribution of the centre.

Nursing and midwifery training

Curriculum reviewed was conducted in 2007 for schools of nursing and midwifery and was adapted by the council for implementation. With support of TB CAP, the Centre trained 30 master trainers who stepped down the training to 138 nursing tutors in the six geopolitical zones. Materials were also supplied to their respective libraries:

- TB training module for general health worker
- Leprosy training module
- Leprosy in Africans

NB: The council is now in the loop of material distribution of the centre.

Schools of health technology and laboratory:

The board of community practitioners was involved in 2007, but curriculum was not fully reviewed. The plan in the coming years is to do more advocacy to the both community board and regulatory bodies of schools of laboratory trainings on the need for the curriculum review.

2.5.3 Partnership with Ahmadu Bello University College of Medicine (including School of Nursing)

The centre is currently collaborating with the community medicine department of the University for training of its post graduate resident doctors. Similarly, the undergraduate students of the medical school undertake 2-week posting on TB/HIV and leprosy annually.

The table below indicates the number of undergraduate students undertaking 2-week postings annually.

Students	2004	2005	2006	2007	2008	Total
Medical	300	60	60	50	75	545
Nursing	33	244	60	202	18	557
Total	333	304	120	252	93	1102

2.5.4 Training of medical laboratory personnel.

1. A total of 147 laboratory personnel from different partners (IHVN, Ghain-FHI, CHAN, NSCIA, CEPHAD and FMOH), were trained on AFB microscopy and HIV serology in 2008.
2. Quality assurance programme: In collaboration with CDC, the unit trained 11 laboratory personnel on panel slide preparation. Subsequently the unit prepared and distributed panel slides to 16 sites supported by IHVN.

2.6 Technical Support to training activities

2.6.1 NLR

The Training Centre received technical support to training through the NLR Training Adviser. In the year 2008, five (5) technical visits were made to the centre.

The areas of support of the adviser are:

- To observe training sessions at the National Training Centre and in the field.
- To plan and implement interventions based on the observations made.
- To plan, organize and implement, together with staff of the National Training Centre, T.O.T. workshops for state teams on training methods and organization of training.
- To advise and assist the management of the National Training Centre on matters of organization, training and workshops.
- To assist the National TBL Control Program with training activities.

In collaboration with the Adviser the NTBLTC supported training activities in leprosy and TB in the NLR-supported states. Training modules in leprosy and TB were developed and finalised.

2.6.2 TBCAP

There were technical support visits from both PMU office at The Hague and the Nigerian office. Most of the support was on development of training materials, facilitation of the first international course and conducting needs assessment of model clinics for field training.

2.6.3 Abt Associates Inc.

The organization started working with the centre in the year 2007. In 2008, USAID/Nigeria supported Abt Associates' Health Systems 20/20 project to provide technical assistance to the TB control program at national, state and local government levels to build institutional capacity for strategic planning, program and human resource management, leadership, supervision and data reporting. Health Systems 20/20 supported the review and finalization of the training materials for program management and leadership workshop. The materials were first developed in 2007; training of core trainers was conducted at the same time.

3 Clinical Services

The NTBLTC is a referral hospital for TB, HIV, and leprosy cases, it equally provides general services to the community. It serves a minimum of seven states in and around its location. These services are provided in collaboration with the NLR and the Institute of Human Virology Nigeria – ACTION Project. NLR supports the Leprosy services while IHVN supports the provision of full range TB and HIV services.

General Out-patient Medical Services

GOPD UNIT	
Total no of patients seen coming for the first time	15037
Total no of patients seen coming for follow-up visit	11337
Total no of patients' visits	26,374
Number of referrals out to:	
ABUTH SHIKA	304
GEN. HOSP. K/GAYAN	139
BARAU DIKKO SP. HOSP. KD	19
PEAD. UNIT BANZAZZAU HOSP.	10
TOTAL NO. OF PATIENTS REFERRED OUT	472

In Patients care:

The centre has a 140-beds capacity for TB, TB/HIV and leprosy patients. The bed occupancy rate of the hospital has been more than 98% in 2008. Patients are admitted based on the following indications:

- TB/HIV co-infected patients who are ill and requiring DOTS and ART at the same time.

- Sick TB patients who can not be seen in DOTS clinics daily.
- Patients with complications referred from the field
- Severe leprosy reactions, complicated leprosy ulcers requiring surgical interventions.

Data on in-patient care in 2008.

IN-PATIENT CARE	
Total no of hospital beds	140
HIV admissions	44
TB admissions	147
TB with HIV co infection admission	36
Leprosy admissions	54
TOTAL NO OF PATIENTS ADMITTED IN THE YEAR	281
Total no of patients day (leprosy)	11,680
Total no of patients day (TB)	23,725
Bed occupancy rate	98%

3.1 TB and HIV Services

All patients attending the GOPD are offered HIV counseling and testing (HCT). HCT is also offered at each point of care. TB/HIV collaborative activities were strengthened in 2008. In addition to HCT and provision of ART and CPT for co-infected patients, other care and support services and home-based care were established within the year. The Salama support group that is active and operates from the Centre was assisted and strengthened to function more efficiently.

The in-patient capacity for TB and HIV services is 100 beds, the number of patients managed in 2008 are as follows;

Total no of patients counseled & tested for HIV	4224
Total no of patients tested positive	1179
Total no of patients on ARV/CPT	657
Total no of TB suspect	1724
Total no of TB suspects screen for HIV	1606
Total no of TB patients on treatments*	334
Total no of TB patients tested (HIV+ve)	114
Total no of TB patients on CPT	182

The following are key indicators of importance to note:

1. 28% HIV positivity rate among all patients
2. 93% of TB suspect were screened for HIV compared to less than 10% nationally and internationally. This was based on the concept of multiple opportunities at different point of patient care (e.g. GOPD, Lab, Wards and DOTS clinics)
3. 7% TB/HIV co-infection rate

3.2 Leprosy Services

The ranges of leprosy services offered were sustained in 2008. More cases of leprosy were diagnosed in 2008 than the last 2 years. The implication is that the transmission of leprosy is still on-going within the community. Services include management of ulcers including teachings on self care and provision of foot wear. Most leprosy reactions are managed in the centre and most patients have to come to the hospital for footwear. There is a big problem with linking leprosy activity of the centre with the field activity, especially the management of leprosy reaction. Below are cases managed within the period under review:

Skin cases seen	12,659
Total leprosy patients registered for MDT	54
MB adult among registered cases	46
MB child among registered cases	7
PB Adult	1
Grade 2 disability among registered cases	20
Leprosy ulcer	18
Leprosy eye complications	11
Eye	26

Key indicators:

1. WHO Grade 2 disability among newly leprosy cases of 37%, which is too high and is an evidence of late case detection.
2. Child proportion of 13% among new cases registered is high.

3.3 TB Infection Control Activities

One of the medical officers of the centre was trained in Botswana on infection control. With that an infection control team was set up within the facility and staff were trained on TB-infection control and injection safety. Infection control policies are applied at the different points of patients contact in the facility with a triage system at the GOPD.

3.4 Technical Support Received for Clinical Services

Institute of Human Virology has been providing regular technical support for patients care through regular supervision and mentoring system of the different thematic areas.

4 Laboratory Services

The laboratory unit has evolved from a one-room to a multi-functional facility. In addition to routine AFB microscopy the laboratory renders various HIV diagnostics and treatment monitoring tests (serology confirmation, treatment monitoring for CD4, chemistry & haematology). A total of 8,426 patients were examined for TB (7,011 for diagnosis and 1,416 for follow-up). Of the 7,011 examined for initial diagnosis, 933 (13.3%) had smear positive diagnosis. For HIV, 1028 confirmation tests were performed while the number of samples from clients having regular treatment monitoring for CD4, chemistry & haematology tests is 1,925.

In the last quarter of 2008 work on the PCR suite was completed. Equipment for line probe assay for MDR-TB and Early Infant Diagnosis for HIV were donated by IHVN. The equipment will be installed in the first quarter of 2009. Similarly work on the biosafety level 2 and 3 Culture and DST laboratories commenced. These facilities are proposed for activation by the end of first quarter 2009. One of the main challenges envisaged in the future is the maintenance of these facilities including provision of reagents and kits for various procedures/tests. The laboratory presently experiences acute staff shortage.

Information on routine AFB microscopy work (2008)

Reason for AFB	Positive	Negative	Total
Diagnosis	933	6,078	7,011
Follow- up	113	1,303	1,416
Total T	1,046	7,381	8,427

Technical support to the laboratory is received from IHVN and CDC. Other support includes provision of equipment and reagents for routine AFB microscopy, culture and DST, PCR tests, HIV serology, haematology and chemistry. IHVN also strengthens the capacity of the centre with 4 technical & 1 administrative staff.

5 Capacity Development of NTBLTC Staff.

Medical officers, facilitators, nurses, lab staff and pharmacy were all trained on TB/HIV care (Counseling and Testing, Anti-retroviral therapy (ART), Management of Opportunistic Infections, and issues of adherence).

- I. Two staff were trained in Sondalo on the implementation the Stop TB Strategy
- II. A staff attended the Union conference at Paris with support of NLR.
- III. Two staff attended the short course on field epidemiology supported by CDC.
- IV. A staff attended the medical officer's course with NLR support
- V. A staff attended the Summer Course at Johns Hopkins University School of Public Health, Baltimore with IHVN support
- VI. A staff attended the TB Infection Control Course in Botswana with TB CAP support

- VII. Six facilitators attended the management and leadership course organized and supported by MSH Nigeria
- VIII. Two staff participated in the HRD platform meeting in Amsterdam organized and supported by TB CAP?
- IX. End of the year party organized to enhance good staff understanding, welfare and social mobilization.

6 Challenges and recommendations

6.1 Challenges

- Human resource crisis, with only 4 medical officers, 12 nurses and only one lab medical lab scientist for the entire range of services.
- Effective coordination and planning of training activities in the field between the centre and the national program.
- Enforcement of infection control plan at all levels of the hospital
- High defaulter rate among patients on ART
- Daunting task of maintaining the laboratory facility (BSL 2, BSL 3, PCR for TB and HIV diagnosis)

6.2 Recommendations

- The FMOH to recruit senior staff according to established posts, especially medical officers, laboratory scientist and nurses.
- Put in place a capacity development plan for the new staff.
- National program and partners should make refresher courses mandatory for all LGTBs for effective implementation of the program
- Implement the institutional TB Infection Control plan
- Develop a defaulter retrieval system using the community volunteer's and improve referral were possible
- The Ministry to set up a plan and implement sustainability plan for functioning of the National TB Reference Centre.

Annexes 1

Facilitations and Examination

In the year 2007 the following participated in the training activities in the areas of facilitation, examination and consultancy.

(A) *External Facilitators/Examiner*

1. Dr. P. Patrobas MBBS, MPH - NPO - WHO
2. Prof. K. Sabitu MBBS, FWCCP Department of Community Medicine ABU Zaria
3. Dr Gebi U MBBE, FWCP IHVN
4. Dr T. Kene MBBS, MSc, FWCCP GHAIN office Abuja
5. Dr C. Ejembi MBBS, FWCCP Department of Community Medicine ABU Zaria
6. Dr. J.O. Osho MBBS - Medical Adviser, DFB
7. Dr. T. Tahir MBBS, MPH - Medical Adviser, NLR
8. Mrs. Tubi O Lab consultant CDC
9. Mr Moses Ayim Lab Consultant GLRA
10. Mr. A.S. Shehu Asst. Chief Nursing Officer, MOH, Katsina
11. Mr. Issac Alobu TBL Control Officer, MOH, Ebonyi
12. Mrs. J. Ebenso Chartered Physiotherapist/State Registered (UK) TLMI
13. Dr Opkapi J. MBBS, FWCP, Department of Medicine ABU Zaria
14. Dr Hussaini N MBBS, Medical Adviser TLMN
15. Dr Kuden U MBBS, Dip Opthamology. Mangu Leprosy Hospital
16. Dr Meshelia MBBS, MPH, TBL control officer Borno State
17. Dr Omoniyi F MBBS, MPH, TB/HIV WHO
18. Mal Abdul Razak D Community TB care GHAIN
19. Mr Olanisebe Lab Consultant GLRA
20. Mr Alfred C Lab Consultant IHVN
21. Dr Emmy van Grinten TB CAP Rep Nigeria
22. Dr Namadi A MBBS, MPH, Medical Adviser NLR
23. Dr Emeka Oguabor MBBS, Medical Adviser GLRA
24. Dr Sam Ogiri MBBS, MPH, WHO/TUB NPO

(B) *Internal Facilitators/Examiners*

1. Dr. J.O. Obasanya MBBS, MPH, Deputy Director/Principal NTBLTC

2. Mr. O. A Oyenuga Lab scientist, HOD Lab
3. Dr. M. Gidado MBBS, MPH, MSc (MeEdu), Training Coordinator
4. Adamu Idris Tari. Ophthalmic nurse, Snr Nursing Off.,
5. Abubakar Dalhatu. Community health officer, Snr Community Health Officer
6. Alh. Haliru D. Liman. Nurse, community health officer, HND - Snr Nursing Off.,
7. Dr. Clement A. MBBS, Medical Officer, NTBLTC Zaria
8. Jonathan Huji. Nurse, orthopedic nurse, Snr Nursing Off.
9. Aminu A. Zuntu. Community health officer, Health Tutor
11. Mr. Jimoh K Scientific Officer
12. Dr Sani M MBBS, Medical officer
13. Dr Udo S MBBS, Medical officer
14. Dr Bashir P MBBS, Medical officer

(C) **Advisor**

Ms Ellie-Plomp de Ligny Training Adviser

Annex 2

Training outcome by sponsors from 2004-2008

1- LGA TB & Leprosy supervisor's course;

Sponsors	2004	2005	2006	2007	2008	Total
NLR	29	20	21	29	18	117
GLRA	17	10	16	16	17	76
TLMN	2	3	14	12	5	33
DFB	8	9	2	5	11	35
States/LGAs	1		6			6
PATHS			3	3	4	9
GFATM				4	20	24
Total	57	42	62	68	75	304

2- TB & Leprosy refresher course for LGTBLS

Sponsors	2004	2005	2006	2007	2008	Total
NLR	11	13	23	18	26	91
GLRA	1		7	15	12	35
TLMN		1	27	2		30
DFB			4			4
States/LGAs				4		4
PATHS						
GFATM				4		4
Total	12	14	61	43	38	168

3- Hospital staff course:

Sponsors	2004	2005	2006	2007	2008	Total
NLR	14	6	11	12	12	
GLRA	1	10				11
TLMN	3		1			4
DFB	8	8	5			21
States/LGAs	3	4	3	4	1	15
PATHS						0
GFATM						0
Total	29	28	19	15	13	104

4- Medical officer's course:

Sponsors	2004	2005	2006	2007	2008	Total
NLR	7	5	6	7	4	29
GLRA	1		2		6	9
TLMN	3	2	2	4	1	12
DFB		1				1
States/LGAs				1		1
PATHS						
GFATM				2	1	3
Total	11	8	10	14	12	55

5- POD course.

The 1st course was conducted in 2008, with a total of 9 participants only (2 NLR & TLMN),