



NIGERIAN INSTITUTE OF MEDICAL RESEARCH

ANNUAL REPORT 2017

2017 ANNUAL REPORT



...the foremost research Institute in Nigeria

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FEDERAL REPUBLIC OF NIGERIA



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FEDERAL MINISTRY OF HEALTH



DR OSAGIE EHANIRE
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FEDERAL MINISTRY OF HEALTH



PROF. BABATUNDE LAWAL SALAKO
DIRECTOR-GENERAL/CHIEF EXECUTIVE OFFICER
NIGERIAN INSTITUTE OF MEDICAL RESEARCH

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Research Departments
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Clinical Sciences
Microbiology
Molecular Biology & Biotechnology
Public Health & Epidemiology

Non-Research Units & Departments
Administration Department
Clinical Diagnostic Laboratory Unit
Consult Unit Corporate Marketing & Communication
Finance & Accounts Department
Internal Audit Unit
Institutional Review Board (IRB)
Library and Information Technology Department
Monitoring & Evaluation/Grant Unit
Procurement Unit
Works & Maintenance Department
Research Publications

EXECUTIVE SUMMARY



Nigerian Institute of Medical Research (NIMR), the foremost research Institute in the country, has the mandate to conduct research into diseases of public health importance in the country. Supporting this task are research staff and non-research staff of the Institute. Following the appointment of the new Director-General, the Institute had a national retreat to reposition NIMR for National Health Research and Development. 2017 was particularly eventful as the retreat led to the preparation of a 5-year Strategic Plan 2017-2021 following the expiration of the previous one in 2016. Directory of staff was produced to enhance ease of communication and seamless location of members of staff. Town hall meetings by the management were held to dialogue and receive feedback from members of staff which produced the needed strategic information used to run the Institute

During the year, the Institute awarded competitive intramural research grants to Research Fellows to conduct research in different areas of the country's research priorities. These

included areas such as communicable diseases, non-communicable diseases, maternal and reproductive health, malaria, tuberculosis, hepatitis, child and adolescent health. Some completed research projects were also disseminated via presentation to stakeholders' forum, peer-review journals, conferences and workshops.

2 017 was particularly eventful as the retreat led to the preparation of a 5 year strategic plan 2017-2021 following the expiration of the previous one in 2016.

The Institute received external grants from agencies and organizations such as NIH, Alexander Bon Humboldt, German Leprosy and Relief Association (GLRA), Institute of Tropical Medicine, Germany, Albany State University USA, WHO – AFRO/TDR/EDCTP, Consortium on Diagnosis of TB and Management of Childhood TB funded by EDCTP, and WHO/TDR Grant. The Institute also received funding from University of Arizona under the H3Africa kidney Disease Research Network to investigate Chronic kidney

Disease in northern part of Nigeria. Local grant supports also came from FHI360 and IHVN to provide treatment and support data collection for research in HIV and tuberculosis.

Funded research projects included the risk factors and Treatment Outcome in patients with Multiple Drug Resistant Tuberculosis in Nigeria, scaling up Research and Diagnosis of Buruli Ulcer to enhance intervention activities of the National Control program, Characterizing virus dynamics and population immunity to the polioviruses in the difficult-to-reach areas in Nigeria, Setting up a Virology Unit for tissue culture in NIMR and Situation analysis, need assessment and intervention programme to develop grant management unit in Nigerian Institute of Medical Research.

The Centre for Human Virology and Genomics (CHVG) was re-energized in 2017 and received International Organization, ISO 15189:2013 standards accreditation during the first quarter of the year. The Centre was the first public laboratory in Nigeria to receive such recognition. In the same vein, the laboratory, following evaluation by the WHO, became listed as a WHO prequalification evaluating laboratory by mid-2017 making Nigeria one of 8 countries in the world to be so listed. Architect i1000 immunoassay auto analyzer equipment (Abbot) for Immunoassay, hepatitis B and HIV antibody/antigen was acquired for CDL to aid research activities.

The establishment of the Centre for Research in Traditional, Complementary and Alternative Medicine (CRTCAM) in the Institute during the year provided a platform for collaboration between NIMR researchers and the Council of Physicians of Natural Medicine and PAX HERBERS a step to determine the toxicity, tolerability and efficacy of common herbs produced by these two organizations. The center has since carried out research into 5 herbal preparations namely Divine Herbal

Eye Medicine, Kampe Bitters by Bond Chemical Industries, A.Y Olorunnisola Tradomedical Centre (Eye Medicine & Rheumatism Medicine), Dr Somco Muti-purpose Medicated Cream (Skin Cream Medicine).

The Institute also expanded the function of the previous Tuberculosis Laboratory, which is a reference laboratory to include research and training. The reorganization of the laboratory necessitated a new name "Center for Tuberculosis Research (CTBR). The Center's laboratory is currently being prepared for ISO Accreditation.

The Institute collaborated with agencies, national and international organizations. Among them are: Centres for Disease Control and Prevention, Harvard School of Public Health, Boston, USA, West African Node of Excellence for TB, AIDS and Malaria (WANETAM), Burroughs – Wellcome Fund Collaborative Research Travel Award 2017, University College Hospital Ibadan, University of Nigeria Nsukka, University of Lagos, University College London, Centre for Proteomics and Genomics Research (CPGR) South Africa, Federal Ministry of Health, International Institute of Tropical Agriculture, Benin Republic, Vector Control Reference Unit, National Institute for Communicable Diseases South Africa, National Tuberculosis, Buruli Ulcer and Leprosy Control Programme (NTBLCP) Nigeria, University of Ghana, World Health Organization and University of Tokyo, Japan. Collaboration was also established with CCHUB Information Technology Company to support improvement of Biomedical Research using IT. During the year, the Institute signed MOUs with institutions such as Federal Medical Centre, Lagos, College of Medicine, Taipei Medical University, Taiwan and Redeemers University, Ede, Nigeria.

Notable international visitors to the Institute were from CDC, London School of Hygiene and Tropical Medicine, Imperial

College, London and African Reinsurance Corporation (South Africa).

The Institute hosted several training programs during the year, this included Ethics of Animal Research Workshop which is just becoming popular in the country and has the potential of improving the outcome of basic medical research. Others included Malaria Microscopy Training for the Scientist in Private And Public Institutions, the Molecular Biology training, etc. The Institute also hosted the 4th International Conference; Theme: "Funding Health Research in a Depressed Economy" during the year which was well attended all over the country including US CDC, WHO, FHI 360, IHN, Sysmex and other development partners and others from abroad. The keynote speaker was Professor Simon Taylor-Robinson of the Imperial College London. Staff members were sponsored to attend workshops, seminars, and conferences.

NIMR now wears a new aesthetically pleasing the look from the gate; main gate has been branded. The central laboratory, the Institute Auditorium and Main laboratory

complex building were renovated. Many housing units have been renovated to improve workspace environment and job satisfaction. The elevator in the administration building was also repaired.

Our satellite stations; Maiduguri and Kainji remain dilapidated and require significant renovation while the main library building project is yet to be completed. Research funding remains poor although improved a little during the year. There is a great need for extra moral funding from universities and their relevant agencies. Although 2017 promotion was not free. About 11 Staff retired/withdrew their service during the year leaving the institute with inadequate workforce. There is an urgent need for replacement of the staff to keep the institute going.

Over all, the institute fare better in term of research activities, laboratory development, Human resource, training and internalization, networking and collaboration. There is a need for improved intramoral and extra moral release of fund to the institute.



PROF. BABATUNDE LAWAL SALAKO
DIRECTOR-GENERAL/CHIEF EXECUTIVE OFFICER
NIGERIAN INSTITUTE OF MEDICAL RESEARCH

WHO WE ARE

The nation's foremost Institute of medical research

Established in 1977 with

Headquarters in Yaba, Lagos, Nigeria

We carryout medical research in Nigeria for use both in Nigeria and globally with several collaborations with other institutions both locally and internationally we have attracted some of the brightest and best brains in the country

VISION

To be an institution of excellence in basic, applied and operational research for the promotion of National Health and Development in Nigeria.

MISSION

To conduct research into diseases of public health importance in Nigeria and develop structures for the dissemination of research findings while providing the enabling environment and facilities for health research and training in cooperation with the federal and state ministries of health and in collaboration with universities, allied institutions and organized private sector nationally and internationally

CORE VALUES

Honesty, Integrity

Leadership

Excellence

Respect, Fairness, Dignity

Teamwork, Innovation

Relevance

Hardwork

Fair Reward and Recognition

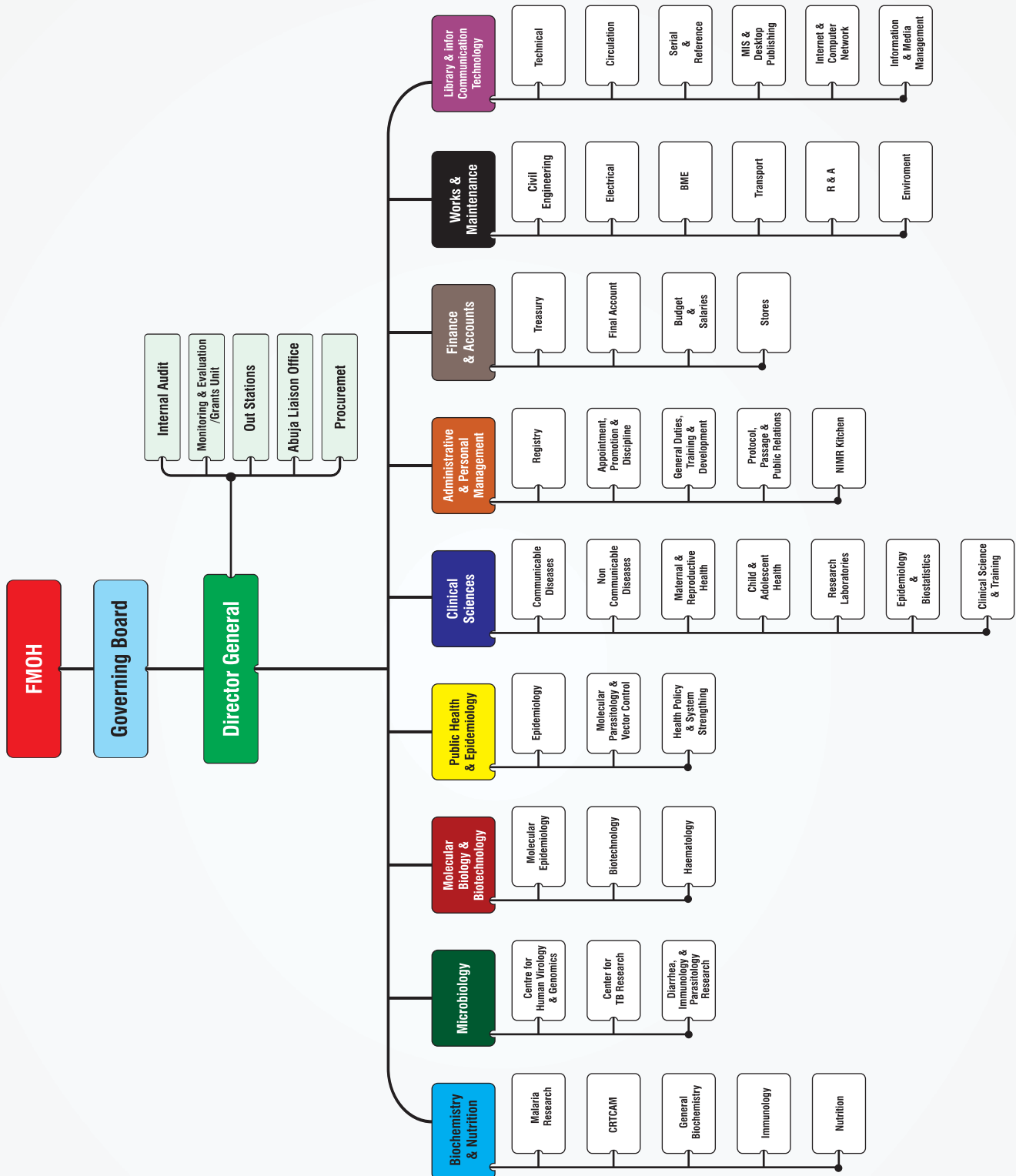
Accountability and Transparency

Communication: Internal and External

Equity



OUR ORGANOGAM



RESEARCH ADVISORY BOARD MEMBERS

Senator (Alh.) Mohammed Danjuma Goje	- Chair
Prof. Oyewusi Gureje (University of Ibadan)	- Co-Chair
Prof. Babatunde L. Salako (DG-NIMR)	- Member
Dr. Olajide Idris (Commissioner of Health, Lagos State)	- Member
Prof Ibrahim Abubakar (UCL Institute for Global Health)	- Member
Dr. Sani Aliyu (DG-NACA)	- Member
Prof. Alash'le Abimiku (IHV, University of Maryland, USA)	- Member
Prof. Ayo M. J. Oduola (IMRAT, University of Ibadan)	- Member
Prof. Ighowwerha Ofotokun (Emory University, Atlanta, USA)	- Member
Prof. M. B. Shittu (Bayero University, Kano)	- Member
Prof. Oladosu A. Ojengbede (College of Medicine, University of Ibadan)	- Member
Prof. Oni Emmanuel Idigbe (Former DG-NIMR & CEO - HUDPHI)	- Member
Professor Martin Madu Meremikwu (University of Calabar)	- Member
Professor Stanley N C Anyanwu (Nnamdi Azikiwe Teaching Hospital)	- Member
Professor Folashade Ogunsola (Deputy V.C. University of Lagos)	- Member

PRINCIPAL OFFICERS



Prof. Babatunde Lawal Salako
Director - General / CEO



Dr. (Mrs.) N. N. Odunukwe
Director of Research & Deputy DG
(Clinical Sciences Department)



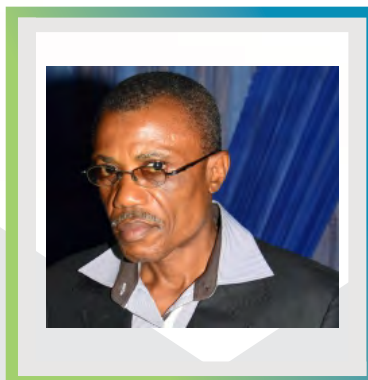
Alh. A.S. Yunusazazzau
Director & HOD
Administration Department



Mr. S. T. Abolarinwa
Director & HOD
(Library & Information Technology Department)



Engr. E. O. Adedeji
Deputy Director & HOD
(Works & Maintenance Department)



Mr. Y. Ogaji
Deputy Director & HOD
(Finance & Account Department)



Mrs. T. Malomo
Deputy Director & HOU
(Internal Audit)

SENIOR MANAGEMENT COMMITTEE

Prof. Babatunde Salako	Director - General / CEO
Dr. (Mrs.) N.N. Odunukwe	Director of Research & Deputy DG (CSD)
Alh. A.S. Yunusazazzau	Director of Administration
Dr. (Mrs.) S.I Smith	Director of Research (MB&BT Department)
Dr. (Mrs.) Akinwale	Director of Research (Neglected Tropical Diseases)
Mr. S.T. Abolarinwa	Director & HOD (Library & Information Technology)
Engr. E.O. Adedeji	Deputy Director & HOD, (Works & Maintenance)
Dr. (Mrs.) R. Audu	Deputy Director & Acting HOD, (Microbiology)
Mr. Y. Ogaji	Deputy Director & Acting HOD, (Finance & Accounts)
Mrs. N.M Otuonye	Deputy Director & Acting HOU, (CDL)
Dr. B. Adewale	Deputy Director & Acting HOD, (Public Health & Epidemiology)
Mrs T. Malomo	Deputy Director & HOU, (Internal Audit)
Dr. B.A Iwalokun	Chief Research Fellow & Acting HOD (MB&BT)
Dr. A.N David	Chief Research Fellow & Acting HOD, (CSD)
Dr. O.O Aina	Chief Research Fellow & Acting HOD, (Biochemistry)

NOTABLE VISITORS TO THE INSTITUTE

S Patrick Kachur	Centre for Disease Control (CDC), Atlanta
Martin Alilio	The United States Agency for International Development (USAID), Washington
Friday Kyahr	GHSC-PSM project, Abuja
Jo-Angeline Kalambo	Global Fund/Geneva, Switzerland
Prof Francis Fakoya	Northumbria University, Newcastle, UK
Prof. David Conway	London School of Hygiene and Tropical Medicine, UK
Simon Taylor – Robinson –D	
Prof. Steven Oboro	
Dr. Tayo Bamidele	Loyola University
Prof. Akinlolu Ojo	University of Arizona
Prof. Gbenga Ogedegbe	New York University
Global fund	
CDC, Atlanta – Entomology branch	
PMI AIRS Project – Abuja	
Imperial College London	
African Reinsurance Cooperation (South Africa)	
African Replace, Parktown, Johannesburg	
Abayomi Estate – Ibadan	

THEMATIC AREAS, STRATEGIC OBJECTIVES, ACTIVITIES, KEY PERFORMANCE INDICATORS AND TARGETS FOR 2017-2021

THEMATIC AREAS	ACTIVITIES	KEY PERFORMANCE INDICATORS	TARGETS
1. Five year development plan	Strategic Objective 1.1 Review previous strategic plan and identify gaps.		
	1.1.1 Meet with staff and researchers to review the previous strategic plan	# of meetings held	2
	Strategic Objective 1.2 Develop, print and disseminate Strategic Plan (SP) by first quarter of 2018		
	1.2.1 Meet with staff and researchers on the development of strategic plan	# of meetings held	2
	1.2.2 Collation and validation meeting of strategic plan	# of meetings held	3
	1.2.3 Print and disseminate SP	Print Yes/No Disseminate Yes/No	Done by 1 st quarter 2018
	Strategic Objective 1.3 Conduct a regular review of the SP implementation		
	1.3.1 Annual review of strategic plan implementation	# of reviews done	5 reviews
2. Leadership and Governance	Strategic Objective 2.1 Establish an institutional research advisory board		
	2.1.1 Inaugurate membership of advisory board	Board Created Yes/No	
	2.1.2 Quarterly review of NIMR research activities, grants and other funding sources	Review done Yes/No	Every quarter
	Strategic Objective 2.2 Engage policy makers, lawmakers and stakeholders to review the Act that established the Institute.		
	2.2.1 Review of current Act by management and staff	Act reviewed Yes/No	3 rd quarter 2019
	2.2.2 Conduct advocacy visit to the leadership of the National Assembly and the Ministry of Health on approval of the Act.	# of advocacy visits to the Minister on the Act.	15 (3 per year)
	Strategic Objective 2.3 Strengthening and maintaining existing strategic partnerships, networks and collaborations		
	2.3.1 Evaluation of current networks and collaborations	Baseline number of current networks and collaboration	
	2.3.2 Develop competitive institutional MOUs and individual research proposal to attract international funding in the areas of national research priority	# of Institutional MOUs developed # of Individual proposal developed, submitted and funded	25 (5 yearly) 125 (25 yearly)
	2.3.3 Identify, categorize and establish new networks within and outside the country	# achieved	20 (4 yearly)

	2.3.4 Conduct training on activities to enhance collaborations nationally and globally E.g. Participation in publications in research oriented journals as editors	# of trainings done	20 (4 yearly)
3. Development of Human Resources required for health research	Strategic Objective 3.1 Establish quarterly national grant writing workshops for researchers		
	3.1.1 Develop national curriculum	Curriculum developed Yes/No	
	3.1.2 Conduct quarterly workshops / mentorship programs	#of workshops # of programs	Quarterly
	Strategic Objective 3.2 Improve number of grant applications submitted and being awarded including patents and innovations		
	3.2.1 Identify and maintain key guidelines and platforms that are requirements for accessing grants e.g. NIH, Wellcome trust, EDCTP, WANATEM, WHO TDR, World bank, TETFUND	# of platforms maintained	4 platforms yearly
	3.2.2 Create strategies for innovations within NIMR to generate patents for commercial and IGR purposes	# of Innovations in NIMR # of patents in NIMR # of sequences submitted to the Genbank	10 (2 yearly) 5 (1 Yearly) 250 (50 yearly)
	3.2.3 NIMR to approach companies, industries in the country to buy into research as a Corporate Social Responsibility.	# of companies	50 (10 yearly)
	Strategic Objective 3.3 Facilitate adjunct positions for NIMR research staff in the universities		
	3.3.1 Conduct advocacy visits to the universities for creation of adjunct positions for NIMR research staff in the Nigerian universities to establish collaboration	# of Universities creating adjunct positions # of adjunct positions created	4 10 Yearly
	Strategic Objective 3.4 Pursue opportunities to collaborate with universities to award academic certificates and degrees		
	3.4.1 Develop and sign MoUs with interested universities	# of universities approached	
	Strategic Objective 3.5 Conduct periodic relevant training/workshops for research support staff		
	3.5.1 Develop training/workshop modules for research support staff 3.5.2 Conduct trainings/workshops for research support staff	# of training/workshop modules developed # of trainings/workshops conducted	
	Strategic Objective 3.6 Produce NIMR specific scheme of service, ensure approval by Head of Service and implementation in the institute.		

	3.6.1 Increase established staff position during review of scheme of service	# of new staff positions created	150 (30 yearly)
	3.6.2 Develop and ensure approval and disseminate NIMR scheme of service	Scheme of service developed yes/no Scheme of service disseminate yes/no	4 th quarter 2018
	3.6.3 Conduct in-service and external trainings for Researchers and Non-Research Staff	# of mass training # of specific training	20 (1 per quarter) 100 (20 per year)
	Strategic Objective 3.7 Conduct yearly promotion		
	3.7.1 Conduct timely yearly promotion exercises	# of promotion exercises conducted per year	5 (1 per year)
4. Infrastructural development to support the human resources	Strategic Objective 4.1 Create a state-of-the-art central laboratory accessible to all Researchers		
	4.1.1 Establish new central laboratory for research activities	Central lab established Yes/No	4 th quarter 2019
	Strategic Objective 4.2 Establish a functional biorepository accessible to researchers in and outside NIMR		
	4.2.1 Create calls to establish and maintain a National biorepository in NIMR	Grant awarded on biorepository Yes/No	4 th quarter 2018
	4.2.2 Upgrade and maintain NIMR cold room for both internal samples and commercial purpose	Cold room upgraded Yes/No	4 th quarter 2018
	Strategic Objective 4.3 Develop and implement SOPs for all laboratories and calibrate and maintain existing laboratory equipment		
	4.3.1 Create calls for proposals to develop and implement SOPs for all laboratories and laboratory equipment in NIMR	Grant awarded to develop SOPs Yes/No % of laboratories using S.O.Ps in the institute	3 rd quarter 2018
	4.3.2 Maintenance agreement signed for all NIMR laboratory equipment	# of equipment maintenance agreement signed	Yearly
	Strategic Objective 4.4 Renovate and build new structures in tandem with the physical needs of the institute		
	4.4.1 Extend Microbiology and Clinical Sciences Departments	Extension done Yes/No	4 th quarter 2019
	4.4.2 Completion of e-library	Completed Yes/No	4 th quarter 2020
	4.4.3 Renovate Abuja, Kanji, Maiduguri and Asaba buildings	Renovated Yes/No	4 th quarter 2019
	4.4.4 Build a new structure for the board room	New structure built Yes/No	4 th quarter 2019
	4.4.5 Build a new structure for the Maintenance Department	New structure built Yes/No	4 th quarter 2020

5. Strategic resource mobilization (finance/capital)	Strategic Objective 5. Improve available opportunities for intramural funding and establishment of extra-mural funding to universities and other relevant Institutions yearly		
	Explore possibilities of endowments		
	5.1.1 To provide intra-mural and extra-mural research funding in the areas of National Health Research priorities	# of intra-mural funding awarded # of extra-mural funding awarded	75 (15 yearly) 25 (5 yearly)
	Strategic Objective 5.2 Strengthen Grants Management Unit to attract more funding		
	5.2.1 Establishment of Grants Management office	Yes/No	3 rd quarter 2017
	5.2.2 Development of grants management guidelines	Yes/No	3 rd quarter 2018
	5.2.3 Training of Grants Management staff and researchers	# of trainings conducted	10 (2 yearly)
	Strategic Objective 5.3 Establish network for private sector funding		
	5.3.1 Establish a NIMR research foundation	Foundation established yes/no	
	5.3.2 Create more opportunities for Corporate Marketing and Communications to generate IGR beyond current resources	# of new opportunities created	20 (4 yearly)
	5.3.3 Create platforms for periodic interactions with relevant private sector	# of meetings	25 (5 yearly)
	5.3.4 Strengthen partnership with HMOs	# of MOUs with HMOs	10 (2 yearly)
	Strategic Objective 5.4 Lobby policy makers for increased budgetary allocation to, and appropriation for, research in subsequent years.		
	5.4.1 Lobbying policy makers and the Ministry of Health	# of visit to policy makers and Ministry of Health % increase in budgetary appropriation	25 (5 visits yearly) 50% increase yearly
	5.4.2 Visits to stakeholders for increased budgetary allocation	# of Visits done	20 (4 yearly)
	5.4.3 Host stakeholders workshop on research funding in Nigeria	Stakeholders Meeting hosted Yes/No	3 rd quarter 2018
	5.4.4 Increase areas of IGR	# of new areas for IGR	10 (2 yearly)
	Strategic Objective 5.5 Explore possibilities of endowments		
	5.5.1 Interface with the private sector to establish endowment fund	# visits to private sectors # of endowments	25 (5 visits yearly) 5 (1 visit yearly)



Photospeak

NIMR Research Advisory Board



L-R: Alh. A.S. Yunusazazzau; Prof. M.B. Shittu; Dr. Olajide Idris; Prof. Martin Madu Meremikwu; Dr. Sani Aliyu; Prof. Babatunde L. Salako; Prof. Alash'le Abimiku; Prof. Ayo M.J. Oduola & Prof. Oni Emmanuel Idigbe

Strategic Planning Committee



Microbiolog Department



Prof. Babatunde Lawal Salako



Biochemistry Department



Clinical Sciences Department



Finance & Account Department



Library & IT Department

2017 Retreat



NIMR 2017 ANNUAL CONFERENCE



Registration point@ 2017
NIMR Annual Conference



L-R DG-NIMR, Prof. B.L Salako &
Prof. Taylor Robinson



Prof. Taylor Robinson @
2017 NIMR Annual Conference



**4TH INTERNATIONAL CONFERENCE OF THE
NIGERIAN INSTITUTE OF MEDICAL RESEARCH**

NOVEMBER 7TH - 9TH 2017

The Communique

The Nigerian Institute of Medical Research hosted researchers within and outside the country on her 4th International Scientific Conference from 5th to 9th November, 2017. The highlights of the conference were a pre-conference workshop on Scientific paper writing and Career Development (5th -6th), main conference (7th -9th), the 7th distinguished lecture series which was titled “Malaria, Mosquitoes and Man: The Battle Continues....” And the Keynote address titled “Urinary biomarkers of Liver Cancer.” The conference over the years has been a platform where researchers disseminate their research findings, showcase their research activities and network for future collaborations. The Conference Theme was: “Funding Health research in a depressed economy” with the Sub-Themes:

- i. Counteracting the upsurge in Non-Communicable Diseases.
- ii. Improving the diagnosis and management of neglected tropical diseases.
- iii. Improving awareness and access to mental health.
- iv. Updates on the care and treatment of Communicable diseases.

The Conference had both local and international participants with a total of 75 participants at the pre-conference workshop, 131 participants registered for the main conference and approximately 310 people attended the VII Distinguished Lecture series. The participants at the conference included:

- The Representative of Lagos State Commissioner for Health
- US CDC Country Director
- APIN CEO
- IHVN CEO
- FHI 360 Chief of Party

- Participants from Research institutions* *
- Participants from Universities both in Nigeria and abroad**
- Participants from Federal and Lagos State Ministry of Health**
- Participants from National and International Donor Agencies**
- Participants from Industries **
- Members of the Press

TECHNICAL AND INTERACTIVE SESSIONS

These sessions involved plenaries, the keynote address, oral and e-poster presentations, round table sessions and symposia. Highlights of findings from these sessions include the following;

- Knowledge of Gender Based Violence amongst In-School adolescents in Lagos State was inadequate and sexual assaults were not formally reported.
- Urinary ¹H MRS (High-resolution MR spectroscopy) and UPLC-MS (Ultra performance liquid chromatography-tandem mass spectrometer) distinguished patients from Nigeria and Gambia with Hepatocellular carcinoma from healthy controls and cirrhosis.
- There is no effective Malaria Vaccine till date. There are about 35 species of Anopheles so far identified in Nigeria. The mosquito vector is constantly interacting with the environment and adapting to environmental changes.
- Poor funding is the bane of Malaria Control and Elimination in Nigeria. Funding for Malaria Research in Sub-Saharan Africa is largely donor dependent and is presently dwindling. If research is not adequately funded by the government, the nation might not get enough information to

develop.

- NIMR is in the fore front of research on malaria vector resistance to insecticides through the establishment of a Molecular Entomology and Vector Control Research Laboratory and insectary facility in Lagos. Furthermore the experimental huts platform at NIMR outstation in Kanji Lake area that provides technical support to the National Malaria Elimination Program.
- Accessing health research funding requires, aggressive Networking, Monitoring, application and Marketing.
- There is need to market opportunities to match the customers interest in research funding.
- Nigeria should have an unbiased stratification of the country necessary for research and intervention.
- There must be a good link between programming, scientists and government.
- Surveillance drives the questions that lead to research which will in turn influence policy. Surveillance and Research need to be interdependent of each other to have an impact in the society. In a bid to protect the health of Nigerians there is need for evidence based prevention and integrated disease surveillance.
- Surveillance, Outbreak Response Management and Analysis System(SORMAS) is a mobile based surveillance system and it is domicile in Nigeria Centre for Disease Control (NCDC)
- Musculoskeletal symptoms are common in HIV-positive population with a prevalence of 25% amongst the cohort attending the NIMR clinic. Symptoms can significantly impair quality of life and it was found that mixing non-prescribed medicines and use of medicines prescribed for

others are common in this cohort.

- Treatment of Systemic lupus erythematosus in Africa is limited due to cost of immunosuppressant and unavailability of laboratory services for diagnosis.
- The awareness of hand sanitizers is high however there is observed low application and usage.
- There is a significant decline in the number of Patients with Hepatitis B and C co infection in Lagos. Coinfection of either hepatitis B and Hepatitis C with HIV was higher in 2008, However there was a decline between 2014 and 2016.
- HIV survival and replication may be impaired in the presence of sickle Hb.
- There is an observed high prevalence of Sickle Cell Disease among the Yoruba ethnic group.
- Regular screening of malaria is necessary for apparently healthy HIV infected children with high CD4 counts.
- Implementation of evidence-based practice(s) for management of hypertension among HIV patients is possible with the collaboration of stakeholders.
- Resistance to most potent 1st line drugs (Isoniazid and rifampicin), multi-drug resistant Tuberculosis (MDR TB) and pre-extensive drug resistant (XDR) TB is on the increase.
- Bacterial vaginosis remains a challenge for women of reproductive age.
- The Nigeria Field Epidemiology and Laboratory Training Program (NFELTP) have 374 epidemiologists trained in 9 years in Nigeria.
- There is low knowledge among women with respect to soil transmission of helminthes infection.
- There is a public health impact of soil transmitted helminthes and schistosomiasis infection in

pregnancy.

Recommendations

- Intensify public health education and enlightenment on gender based violence.
- Need for environmental re-engineering ranging from housing design and drainage constructions in the country to reduce entry of mosquito's into houses and breeding sites respectively.
- Vector surveillance and resistance monitoring should be included as a critical component of the national policy and strategic plan for LLINs distributions.
- More knowledge should be sought on the relationship between the environment, mosquitoes, human disease and demography as this will help implementation of appropriate control measures in a rapidly changing environment.
- Funding mechanisms should include research on new and improved controlled strategies.
- There is need for education and awareness on rheumatology to increase referrals to health care service. Rheumatology is still in its formative stage in Nigeria with lack of standard anti rheumatic drugs in most health facilities.
- There is need for increased public awareness and an algorithm for diagnosis and treatment of SLE based on available resources and local healthcare.
- Nigerian government is encouraged to take up the

responsibility of providing and improving access to third line antiretroviral drugs.

- Antiretroviral drug regimen should be simplified as much as possible to ensure optimal patient adherence and successful treatment outcome.
- There is need for further investigation on the long term usage of Tenofovir, Efavirenz, and Lamivudine on the menstrual cycle of HIV Infected females.
- There is need for public enlightenment and education to promote the use of hand sanitizers.
- Continuous training of staff on biosafety measures is recommended.
- There is need for an alternative method of rapid diagnosis for TB in Nigeria.
- Establish quality management systems at all levels in the laboratory to improve competency in Nigeria.
- Implementation of evidence-based practice(s) for management of hypertension among HIV patients can be achieved with the collaboration of relevant stakeholders.
- There is need to carry out more research on antimicrobial resistance in Nigeria.

These are the highlights of the 4th international scientific conference.

Rapporteur coordinator

Dr. Greg Ohihoin

Chair, Conference Organising Committee

2017 SCIENTIFIC SEMINAR PRESENTATIONS

PRESENTER	TITLE	DATE
Dr. O.O. Aina Biochemistry Department	Seasonal Variation in Malaria Prevalence and Anaemia in Ijede, Ikorodu L.G.A. Lagos, Nigeria	8th Feb., 2017
Mrs. Ngozi Otuonye Clinical Diagnostic Laboratory	Current and Potential Diagnostic Services at the Clinical Diagnostic Laboratory NIMR, Lagos	22nd Feb., 2017
Dr. Ada Okechukwu Clinical Sciences Depart	Renal Disease in HIV Positive Adult Nigeria: Study of Prevalence and Risk Factors.	22nd March, 2017
Emergency and Preparedness Response Group	1)Epidemiology And Management of Neisseria Meningitis In Nigeria 2) Neisseria Meningitis Outbreak in Nigeria: the Current Situation 3)Laboratory Diagnosis and Characterisation of Neisseria Meningitis	19th April 2017
Mr. Azuka Okwuraiwe Human Virology Laboratory	Validation of Dried Blood Spot (DBS) Samples For Viral Load Assay in Nigeria	26th April 2017
Mr. Akindele Samuel Clinical Diagnostic Laboratory	1) Effect of Artemisinin based combination therapy and chloroquine 2) Treatment on Liver Enzymes and biomarkers in Plasmodium Berghei Malaria Infection	26th April 2017
Mr. Henry Emmanuel Uzoma	Intestinal parasitic infections: current status and associated Risk Factors among School aged Children in Makoko, Lagos State	26th April 2017
Mrs. E.E Afocha	Situation Analysis of Dengue as a disease of Public Health concern in Nigeria	31st May 2017
Dr. Nneka Onyejebu	A mentoring and supervisory programme to improve the quality tuberculosis reference Laboratories in Nigeria: An Implementation Research	31st May 2017
Alh. T.Y. Raheem	Performance assessment of rapid Diagnostic Kit for the diagnostic of mycobacterium tuberculosis complex in Lagos, Nigeria	31st May 2017
Dr. A.G. Ohihoin	HIV Status Discordance: Associated Factors Among HIV Positive Women Attending Antenatal Clinic In Lagos, Southwest, Nigeria	31st May 2017
Dr. B.A. Iwalokun	The use of bioinformatics to test the druggability of novel drug targets in Human and Zoonotic Pathogens: Mycobacterium Lepae 3-Ketoacylcoa Thiolase as a case study	14th June 2017
Mrs. U.T. Igbaasi	Molecular profile of antimalarial drug resistant Genes to artemisinin, chloroquine and sulphadoxine pyrimethamine in Lagos, Nigeria	14th June 2017
Mrs. G.B. Akintunde	Epidemiology of sero-conversion rate against measles among Nigeria children in the first 2 years of Life	28th June 2017
Mr. A.P. Okwuraiwe	Pattern of HCV Genotypes in HIV-1/HCV Co-infected subjects on first Line antiretrovirals	28th June 2017
Mrs. N.E. Tochukwu	Drug susceptibility of mycobacterium Tuberculosis complex by phenotypic proportion method	12th July 2017

2017 SCIENTIFIC SEMINAR PRESENTATIONS

Mrs. Veronica N. Victor Enya	Current Laboratory diagnostic approach to semenology for male infertility	12th July 2017
Prof. David Conway London School Of Hygiene And Tropical Medicine	Multiplication rate variation and adaptation of the malaria parasite plasmodium falciparum in West Africa	26th July 2017
Dr. O.O. Aina	Integration of traditional medicine practice into conventional health care: A model for Nigeria	26th July 2017
C.O. Ejezie	Rapid diagnosis of tuberculosis using Genexpert MTB/RIF Assay	26th July 2017
Mr. O.S. Amoo	Obesity and reproductive function in a Sample of Nigerian Men seeking fertility treatment	26th July 2017
Dr. Jane O. Okwuzu	Toxoplasmosis Infection in HIV Infected Adults in Lagos State	9th August 2017
Dr. T.A. Bamidele	Antibacterial activities of probiotic lactic acid bacteria against Metronidazole Resistant Atopobium Vaginae Isolated From Nigerian Women with bacterial vaginosis	9th August 2017
Mr. D.O. Akande	A comparative survey analysis of five diagnostic methods for the determination of urinary schistosomiasis among school aged children in Imala-Odo Community, Ogun State	9th August 2017
Ms. Corinne Ngameko	Identification of inhibitors of helicobacter pylori from Cameroonian medical plants.	29th August 2017
Mrs. Chinedum Oparaugo	Trend in bacterial vaginosis infection over a 9-year period at a healthy facility in Lagos, Nigeria	29th August 2017
Mr. Adeniyi K. Adeneye	Epidemiology of suicide in Nigeria: a rising social problem of public health significance	13th Sept 2017
Dr. C.K. Onwuamah	Correlation of GST T1 and m1 genotypes with measures for genome integrity in children exposed to ARVS	13th Sept 2017
Prof. Olugbemiro Sodeinde, Fmcpaed (Nig), Fas	"Cry, The Beloved Country; But Sunkunmus, Riranmus!"	25th Sept 2017



BIOCHEMISTRY AND NUTRITION

DEPARTMENT

conducts research aimed at providing evidence-based information on the pathogenesis, diagnosis, treatment, prevention and control of communicable and non-communicable diseases of public health importance in Nigeria.



BIOCHEMISTRY AND NUTRITION DEPARTMENT

Introduction

The Biochemistry and Nutrition Department conducts research aimed at providing evidence-based information on the pathogenesis, diagnosis, treatment, prevention and control of communicable and non-communicable diseases of public health importance in Nigeria. The Department also conducts general biochemical analysis of human, animal and other relevant samples in addition to research into the safety, efficacy, claims authentication and compound testing of selected natural products including their active ingredients. The recently inaugurated Centre for Research in Traditional, Complementary and Alternative Medicine (CRTCAM) at the Department trains and equips traditional medical practitioners on the role of safety and efficacy of alternative and complementary medicine. Pertinent in the interventions of the department are nutritional investigations into Nigerian foods and food products and their health effects, immunological studies into diseases of communicable and non-communicable diseases, phytochemical and proximate analysis, Isolation and testing of the active ingredients. Molecular diagnosis, Resistance tracking and detection of re-infection and recrudescence of malaria parasites. Community studies of malaria prevalence, Drug Therapeutic Efficacy Studies (DTES) of anti-malarial medicine in humans and Screening of medicinal plants for

antimalarial activities in animal models of diseases are some areas of interests of researchers within the Department. The Department has at present a staff strength of 6 Research fellows and 3 support staff. Two Research Fellows were seconded to the department to strengthen the Centre for Research in Traditional, Complementary and Alternative Medicine (CRTCAM). The Department has seven units including, General Biochemistry, Centre for Research in Traditional, Complementary and Alternative Medicine (CRTCAM), Nutrition, Immunology, Natural Product Research, Malaria Research, Molecular Parasitology Four members of Staff were promoted during the last promotion exercise conducted in the Institute. The department interviewed two Research Fellow I Candidates and Adjunct Research Fellows to be employed by the Institute. Dr YA Olukosi resumed from sabbatical leave at the University of Lagos in the year 2017.

Research activities in the Department are anchored within the different research areas of the Institutes. Each Research Fellow was a member, and participated in research activities at least in one of the research groups. There is also one PhD student whose research activities are domiciled within the Department.

Conference/Workshops/Training Attended by Staff: 18
Bench work experience (B.Sc., MSc, PhD) with dates
B.Sc : 8 February 2017

M.Sc:	3	February 2017
Ph.D:	2	January 2017

NYSC, interns and industrial training programmes with

dates: A total of seventy (70) students on Industrial training programme from various tertiary institutions in the six (6) geopolitical zones were trained in the department in 2017. Three (3) Inters and one (1) NYSC.

Collaborations (International & National):

There were collaborations with the following agencies and institutions
 Medical Research Council (MRC) – Gambia
 University of Tokyo, Japan
 Centre Pasteur du Cameroun (CPC)
 University of Ghana, Legon.
 University of Lagos
 University of Ibadan
 Research Institutes
 World Health Organization (WHO)
 NMEP
 Nigerian Council for Physicians of Natural Medicine (NCPNM)
 Pax Herbal Clinic and Research Laboratory

Achievements

- Creation of Centre for Research in Traditional, Complementary and Alternative Medicine (CRTCAM)
- Training/workshops were conducted in the Department including: Malaria Microscopy (17 Participants), Steps to Commercialization of Herbal/Medicinal Products in Nigeria (100 Participants), Industrial Training students (70 students), Inters (3) and project students (13 students)
- Promotion: One Research Fellow was promoted while another one was upgraded. Two non-Research Fellows were also promoted in the department.

Grants/Fellowship/Award

Currently there are two (2) grant projects running/just concluded in the department namely:

- WHO/TDR small grants - Improving adoption and use of malaria RDTs & ACTs for effective case detection and treatment: achieving high results based treatment using community health workers towards pre-elimination. Ajibaye Olusola
- WHO/TDR-Understanding the impact of insecticide resistance on the efficacy of IRS and LLIN in 3 ecological settings of Mali, Benin and Nigeria. Awolola TS (PI), Olukosi YA (Co PI)

Year 2018 Goals

- The department hopes to develop a tissue/cell and parasite culture laboratories for drug development and testing.
- The department hopes to establish a platform for Clinical trials of vaccines and drugs.
- The department has capacity to train growing population of members of the public on novel drug discovery and development through the Centre for Research in Traditional, Complementary and Alternative Medicine.
- We hope to collaborate with international organizations for continued monitoring of drug resistance especially in the areas of Malaria Research.
- We have capacity for research into Non-Communicable Diseases and other degenerative diseases research for global impact.
- We have capacity for research into Nutrition based research for global impact.



A Research Fellow examining a rat during an experiment



Participants in the lab during workshop



Participants administering substance to the rat during workshop



Scientists carrying out PCV during Animal experimentation Workshop



Group photograph of Participants during a 3-day training workshop on Herbal product





CLINICAL SCIENCE

DEPARTMENT

has continued to conduct operational research in addition to the comprehensive care given to patients enrolled in the HIV, TB and Hepatitis Programmes of the Institute.



CLINICAL SCIENCES

DEPARTMENT

Introduction

It is my pleasure to present the 2017 annual report of the Clinical Sciences Department; giving an account of our performance journey during the year and also projecting our plans for the future.

The Clinical Sciences Department has been in existence for the past 13 years and since undergone several restructuring until it metamorphosed into its present stage. The year 2017 had various activities with key focus on research, service delivery and capacity development. This is what would be reflected in the report below. The Department has continued to conduct operational research in addition to the comprehensive care given to patients enrolled in the HIV, TB and Hepatitis Programmes of the Institute. Research activities conducted in the department were showcased and disseminated at the 4th International and 7th Annual Scientific Conference of the Institute in which the Department produced the best Young Researcher of the Year (Mrs Ekama Sabdat) in addition to two other awards for best presentations in different scientific tracks (Dr Ogunsina Oluwadamilola and Ms Ifeoma Idigbe). We acknowledge the tremendous support and contribution of the Implementing Partner for HIV/AIDS services, Family Health International (FHI 360), to the accomplishments of the Department in 2017. The recognition of our clinic as the most user-friendly ART clinic in Nigeria, and our DOTS clinic as the best in Lagos State testifies to the impact being made. Our HIV/AIDS programme continues to be among the largest

and the best in the country with cumulative enrolment above 25,000 including adults, pregnant women and children; mother to child transmission (MTCT) rate less than 1%; loss to follow up (LTFU) rate of less than 20%, and mortality rate of about 3.3%.

This report documents the structure and activities of the Clinical Sciences Department in 2017 which helped to actualize the NIMR mandate of Research for National Health.

Administration

The Department is structured into three broad sections of Research, Programme Support and Projects, and Clinical and Laboratory Services. There are 9 subunits (Clinical, Administrative, Medical Records, Data Management, Counseling, Pharmacy, DOTS, Nursing and Accounts) each with a unit head that reports directly to the Head of Department. The Departments also work very closely with the Centre for Human Virology and Genomics (CHVG) and the Centre for Tuberculosis Research (CTR). Both centres provide laboratory support for our HIV and TB programmes respectively. The Department had a total of 70 staff in the year under review. These were supported by 5 project staff, 10 National Youth Service Corps members and 15 volunteers. The breakdown is as follows:

Table 1: Staff Cadre Strengths in Clinical Sciences Department

	STAFF	NO. OF STAFF
1.	Medical Doctors	18
2.	Pharmacists	5
3.	Nurses	9
4.	Counsellors	4
5.	Data Officers	7
6.	Accounts	3
7.	Admin.	7
8.	HTS	3
9.	DOTS	3
10.	Records	7
11.	Research Laboratory	4
12.	Project Staff	5
13.	Youth Corps Members	10
14.	Volunteers	15
TOTAL		100

Training

In order to attain the goal of maintaining highly trained and competent staff in various disciplines, the Department supports staff to acquire additional relevant training necessary for career progression. It also accommodates internship training; youth service program, residency as well as training of researchers in the Department's areas of competence.

Postgraduate Training

Staff on Postgraduate Training = 7

Collaboration:

In 2017, a Memorandum of Understanding (MoU) was signed between the Department and University College, London (UCL) for collaboration in the area of non-communicable diseases, notably musculoskeletal disorders (MSK) in persons living with HIV infection. The collaboration yielded a prevalence study of Musculoskeletal (MSK) Disorders among HIV infected patients in Nigeria, the results of which were presented at the 4th NIMR International Conference in November, 2017. Findings from the study also led to a decision to establish an MSK clinic in NIMR and three MSK clinics/ year which will have a visiting rheumatologist at every MSK clinic session.

Research

Research activities are coordinated by employing a multidisciplinary approach in which researchers are sub-divided into various research divisions. This is presented in the table below.

Conferences Presentations: 7

Table 5: Activities of the Research Divisions in CSD

Research Division	Research Work	Staff involved
Childhood & Adolescent Health (CAH)	<ol style="list-style-type: none"> 1. Prevalence and impact of SCD among HIV infected children 2. Prevalence and pattern of intestinal parasites infestation among HIV infected children in Lagos, Nigeria 3. Malaria parasitaemia in asymptomatic HIV infected children. 4. Knowledge and Perception of Gender-based Violence amongst Adolescents in Lagos State. 	Drs David, Gbajabiamila, Wapmuk, Odubela, Musa, Okwuzu, Mrs Ekama and Ms Idigbe
Communicable Diseases (CD)	<ol style="list-style-type: none"> 1. Seroprevalence of Hepatitis B and C virus co-infection among adults with HIV in a Large HIV Treatment Centre 	Drs Onwujekwe, Ezeobi, Okwuzu.
Maternal and Reproductive Health (MRH)	<ol style="list-style-type: none"> 1. Effect of Efavirenz, Tenofovir and Lamivudine on reproductive functions of female wistar rats and HIV positive adult females 	Drs Ezechi, Ohinion, Gab-Okafor, Ms Idigbe.
Non-Communicable Diseases(NCD)	<ol style="list-style-type: none"> 1. Pattern of NCDs in a large HIV clinic in Lagos Nigeria 2. The burden of musculoskeletal diseases in HIV cohort, NIMR 	Drs Odunukwe, Wapmuk, Oladele, Aghahowa, Musari-Martins, Okechukwu, Mrs Ekama
Epidemiology and Biostatistics	<ol style="list-style-type: none"> 1. Therapeutic Efficacy of Artemether-Lumefantrine, Artesunate-Amodiaquine, and Dihydroartemisinin Piperaquine for the treatment of uncomplicated Plasmodium falciparum Malaria in Nigerian Children 2. Entomological Surveillance in Nigeria 	Drs Oladele, Musa

Table 6: Publications by Research Divisions

Research Division	Number of publications
Child and Adolescent Health	2
Communicable Diseases	4
Maternal and Reproductive Health	7

HIV Treatment Programme

The HIV treatment programme of the Department is one of the best in Nigeria with evidence of excellent treatment outcomes in our patients. The programme comprises of a multidisciplinary team which has provided care for HIV infected patients from 2004 till date. The cumulative enrollment of HIV positive persons since inception of the clinic till 2017 is 25,365 while a total of 5,126 HIV exposed infants were managed till 18 months of age when they were

discharged from the clinic following a HIV negative result. A total number of 300 HIV positive patients were enrolled into care from Jan-Dec 2017 comprising of 279 adults and 21 paediatric patients. The HIV clinic also renders PMTCT (prevention of mother to child transmission of HIV) services and a total of 261 HIV positive pregnant women were enrolled in the year. The enrollment pattern by gender and on monthly basis is depicted in the figures below.

Figure 1: New Adult Enrolment

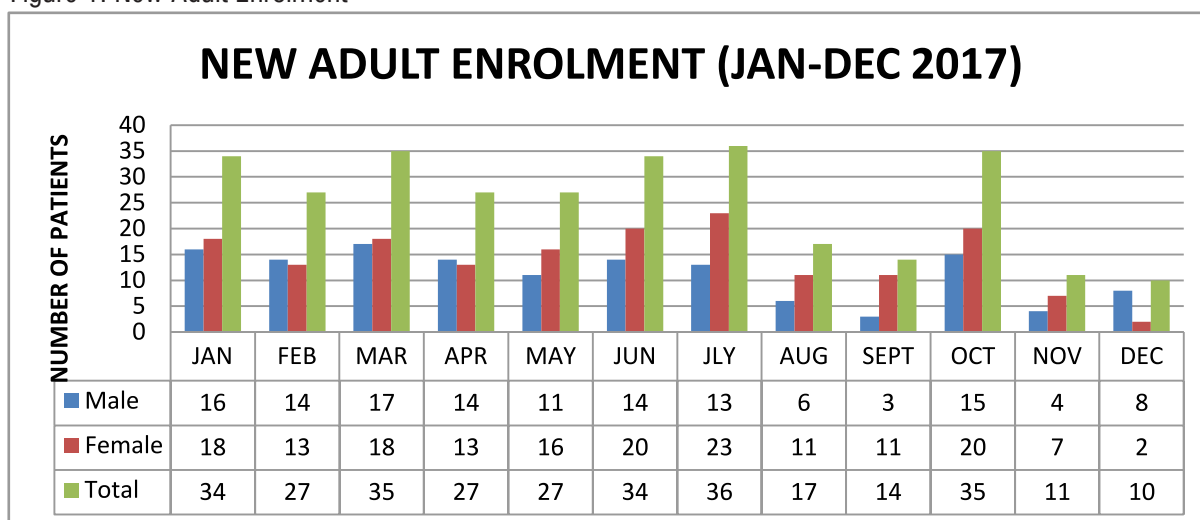


Figure 2: New Paediatric Enrolment

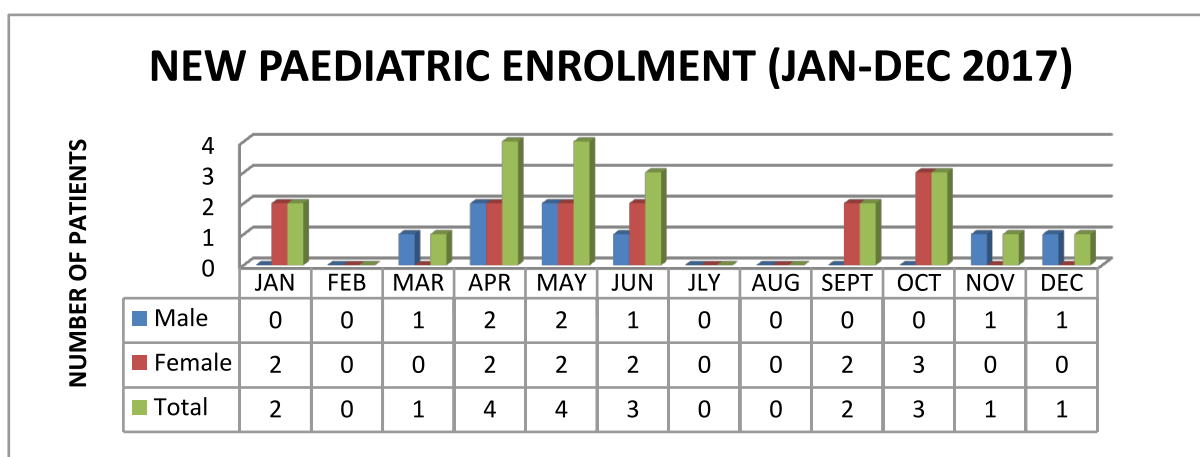
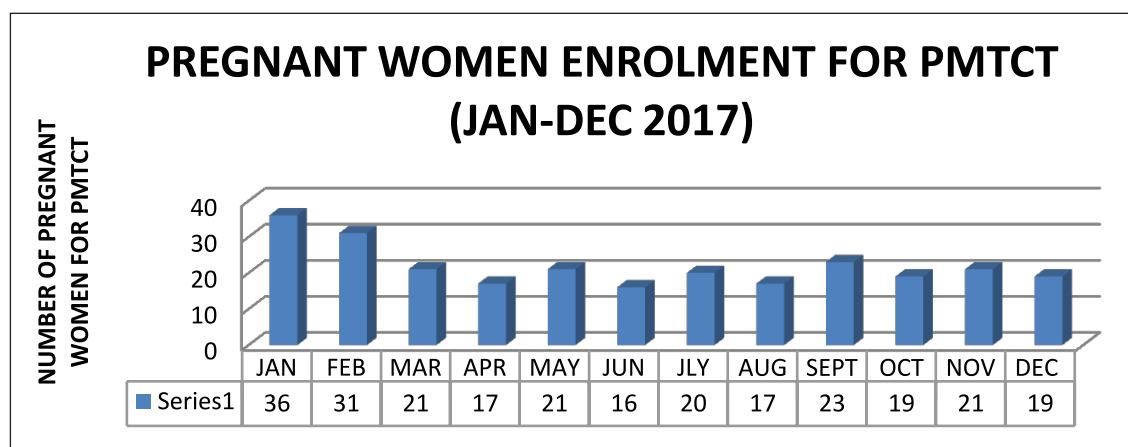


Figure 3: New PMTCT Enrolment



Tuberculosis Treatment Programme

A total of 339 patients were diagnosed and treated for tuberculosis in the year 2017 which is an increase from the 214 patients treated in the year 2016. Of the total TB infections recorded in the year 2017, 57.8% were co-

infected with HIV which shows an increase in TB infection amongst HIV negative individuals. Treatment completion and cure rate was over 90%. The table below shows the number of TB cases managed in the year 2017

Table 7: New TB Infections

	JAN	FEB	MAR	APR	MAY	JUN	JLY	AUG	SEPT	OCT	NOV	DEC
MALE	16	11	15	13	15	23	10	16	9	20	16	17
FEMALE	14	9	19	10	14	12	10	12	7	20	20	11
TOTAL	30	20	34	23	29	35	20	28	16	40	36	28

Specialized Clinic Services

The department offers specialized clinic services to members of staff and their families as well as the general public. These specialized services include family planning, cervical and breast cancer screening, fertility treatment,

hepatitis vaccination/management and other gastroenterology diseases. Other specialized clinics are the paediatrics, haematology and infectious diseases.

Table 8: Specialty Clinic Days

Specialty Clinic	Day of the week	Consultant
Haematology	Monday	Dr N. N. Odunukwe
Paediatrics	Tuesday	Dr A. N. David
Hepatitis & Gastroenterology Clinic	Monday, Wednesday, Friday	Dr J. Iwuora
Hypertension and Nephrology clinic	Tuesday	Prof B. Salako
Gynaecology and Women's Health	Thursday	Dr O. C. Ezechi, Dr A. G. Ohihoin
Infectious Diseases	Monday- Friday	Dr D. I. Onwujekwe
Adolescent Clinic	2 nd Saturday of the month	Dr. A. N. David

Research Support Laboratory

The research support laboratory of the Department offers laboratory support for the research activities in the Department. It also offers laboratory services to patients attending the specialized clinics. The laboratory has capacity for heamatologic, parasitological and clinical chemistry analyses and is manned by a consultant haematologist, two parasitologists, one medical laboratory scientist, and one science laboratory technologist.

Data Management

The data management unit has been responsible for electronic data collection, collation and analysis of patient information since inception of the clinic. The records of over 25,000 patients are stored in the database for accessibility to authorized personnel. The unit has capacity to develop research tools and make data available for research using statistical tools and programs. The unit works closely with the Monitoring & Evaluation and ICT Units of the Institute. The unit has been restructured to accommodate all data personnel in the same office to ensure prompt and efficient services.

Events and Programs

The Department successfully organized the 2017 Children's Day celebration with the theme "Gender Based Violence, Protecting the Girl Child". It had in attendance students and teachers from over 10 secondary schools in Lagos State. The students participated in the debate and drama sessions. CMS Grammar School emerged as the winner of the debate on Gender Based Violence (GBV). Other schools in attendance were Igbobi Boys Secondary School, Baptist Girls and Boys Secondary Schools, Bishop Howell's Secondary School etc. A representative of the Lagos State government, Mrs Alakija, who is the anchor person for GBV in Lagos State, gave the keynote address during the event. The Department runs an adolescent HIV clinic on the 2nd

Saturday of every month, aimed at providing clinical care and addressing psychological and social issues peculiar to HIV infected adolescents. The Teenage Zone Youth Club which is the adolescent Support Group in the Clinic meets after the Clinic on the same 2nd Saturday. During these meetings issues pertaining to adolescence, education, career and living successfully with HIV are discussed. Resource persons are also invited to train them in various skills that could result in possible financial empowerment. The clinic is coordinated by the Consultant Paediatrician of the Institute.

Achievements

1. The Department has won the Director General's Young Researcher contest for 3 consecutive years.
2. The Department has the most user-friendly ART Clinic in Nigeria
3. The Department has a TB DOTS Clinic which has recorded high cure rates for tuberculosis in Lagos State
4. The Department's Out-patient Clinic continues to provide services to clients even during periods of industrial actions and public holidays because of our sensitivity and responsiveness to the peculiar needs of our clients.
5. Dedicated staff members

Challenges

1. Decaying departmental infrastructure
2. Flooding of the clinic during rainy season
3. Difficulty in accessing departmental funds from IGR and FHI 360 for departmental trainings and research activities

Plans for 2018

The Department plans to strengthen research activities by devoting more time to research in 2018. We intend to ensure infrastructural and continuous human capacity development. We also plan to modify and improve on our mode of service delivery to satisfy the needs of our client more efficiently.

Conclusion

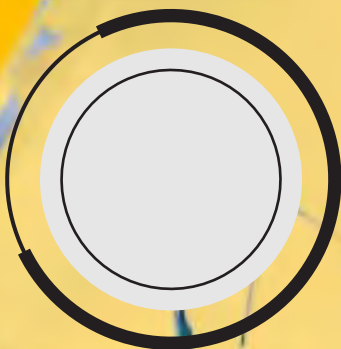
The year has been successful in spite of the challenges encountered. We look forward to greater accomplishments in the year 2018.



MICROBIOLOGY

DEPARTMENT

**is charged with the
responsibility of
conducting research into
emerging and re-emerging
infectious diseases of
public health importance
in the country.**



The header image is a composite of two petri dishes. The left dish shows a bacterial culture on a red agar medium with numerous small, red, circular colonies. The right dish shows a fungal culture on a blue agar medium with several large, white, circular colonies. The text 'MICROBIOLOGY DEPARTMENT' is overlaid on the image. 'MICRO' is in white with a red outline, and 'BIOLOGY' is in white. 'DEPARTMENT' is in white on a red rectangular background.

MICROBIOLOGY

DEPARTMENT

Introduction

The current department of Microbiology existed as separate entities until May 2017 when the former head of department Dr SMC Ezeugwu retired. The department was then merged with the Human Virology Laboratory and Dr Rosemary Audu was appointed the new Head of Department. This newly restructured Department is composed of three divisions which also had name changes: Center for Human Virology and Genomics (formerly known as Human Virology Laboratory), Center for Tuberculosis Research (previously National Tuberculosis Reference Laboratory) and Diarrhoea, Immunology and Parasitology Research Division (the former Microbiology Division). The restructuring has reinvigorated the department warranting several in-house staff movement and trainings for improved productivity. The Department is charged with the responsibility of conducting research into emerging and re-emerging infectious diseases of public health importance in the country. As part of its corporate social responsibility, the department is also poised to provide some service to the community. All these activities are conducted in an atmosphere of quality management system even as the Center for Human Virology and Genomics continues to blaze the trail, in laboratory systems quality implementation, in the Country.

Research Training and Career Development

- a. No of Conferences/Workshops/Training Attended = 44
- b. PhD students in the department = 6
- c. Number of postgraduates being supervised for bench work = 2
- d. Number of students on industrial training and national youth service = 43

Collaborations and partnerships (International and National)

International Collaborators

- Centres for Disease Control and Prevention, Abuja & Atlanta;
- Clinton Health Access Initiative, Abuja
- Harvard School of Public Health, Boston, USA - CDC HIV Drug Resistance Grant
- The Children's Hospital of Philadelphia – Probiotics Collaboration
- Emory University – D43 Training Grant Application
- Kings College London – Psychosis Genetics Research
- West African Node of Excellence for TB, AIDS and Malaria (WANETAM).

National Collaborators

- Federal Ministry of Health
- National TB and Leprosy Control Program
- FHI360
- Institute of Human Virology Nigeria
- AIDS Prevention Initiative in Nigeria (APIN)
- Society for Family Health
- Jos University Teaching Hospital, Jos
- University College Hospital, Ibadan
- University of Nigeria, Enugu State
- University of Lagos, Lagos State

Achievements

- CHVG became the first public health facility to be ISO 15189:2012 accredited in Nigeria.
- Dr Igbasi U. T completed a PhD in Medical Microbiology and Parasitology, University of Lagos
- Kunle-Ope C.N. – Best Abstract Presenter in HIV/TB Track at the 4th International Scientific Conference (NIMR), November 2017
- Efere L.O. – 1st Runner up Director General's Young Researcher Contest at the 4th International Scientific Conference (NIMR), November 2017
- Uwandu M. – 2nd Runner up Director General's Young Researcher Contest at the 4th International Scientific Conference (NIMR), November 2017
- Ms. Amuda O.B.- CTBR Staff of the year 2017
- Mr Abba Ujah– Staff of the Year 2017, CHVG

Grants/Fellowship Awards

- WANATEM Consortium on Diagnosis of TB and Management of Childhood TB funded by EDCTP

Year 2018 Goals

1. To be listed by World Health Organization as a prequalification laboratory
2. To strengthen genomic function at the CHVG
3. To expand scope of ISO 15189 accreditation to include CTBR
4. To implement quality management system in DIPR
5. To attract more research grants and collaborators

CHALLENGES

1. Another was the unavailability of HCV Genotyping kits from the manufacturer due to changes in the platform.
2. We have several equipment due to be replaced because they have reached end-of-life and/or have broken down beyond repair and are recommended for boarding.
3. Scope of activities and research at the Centre have increased tremendously, necessitating more equipment
4. Strike action leading to backlog of samples
5. Interruption of services due to equipment down time
6. Shut down of BSL3 Lab
7. Inadequate funding for research
8. Intermittent power outages.

Way Forward

- Streamlining of our procurement and supply system to function optimally, reducing attendant man-hours, debts to suppliers, system delays and wastages.
- Research staff to devote more time to research, attracting grants and credible collaborators.
- Staff to complete post-graduate studies embarked upon, freeing them for further research activities.
- To sustain our international ISO 15189:2012 accreditation and earn monies from assessing IVD

devices for WHO.

- To expand the scope of research and services provided in our chemistry and molecular diagnostic laboratories. The targeted assays are drug of abuse, commercialize sequencing and PCR services, and paternity testing.
- To prepare for external audit by IHVN auditors followed up by mentors towards preparation for ISO accreditation.
- To increase research activities in CTBR with the implementation of a molecular typing/sequencing system, drug resistance surveillance system (using existing surveillance tools and bio-security program (standardized TB culture Repository).
- To continue to conduct research in line with the NIMR mandate
- To write proposals for research grants to supplement government financial provisions.

MOLECULAR BIOLOGY & BIOTECHNOLOGY

DEPARTMENT

members of the Department were involved in research activities in the department and other Research Groups in the institute namely; Malaria, HIV/AIDS and TB, Non-Communicable Diseases and Emergency Preparedness and Response (EPR).





MOLECULAR BIOLOGY & BIOTECHNOLOGY

Introduction

During the year, members of the Department were involved in research activities in the department and other Research Groups in the institute namely; Malaria, HIV/AIDS and TB, Non-Communicable Diseases and Emergency Preparedness and Response (EPR). The department organised three workshops in Molecular Biology and Proteomics, Trypanosomiasis surveillance capacity building and Bioinformatics. Part of the equipment decay challenges in the department mentioned in the 2016 Annual Report was addressed in 2017 through external grant and stewardship. The department received Alexander von Humboldt Equipment grant for the acquisition of one Real Time PCR equipment and one Photodocumentation system. The department also acquired an additional horizontal gel electrophoresis system. Dr S.I Smith successfully hosted and trained for 6 months an ICGEB fellow from Cameroon on Identification of inhibitors of *Helicobacter pylori* from Cameroonian medicinal plants. Dr S. I Smith (Director of Research) and Dr. Iwalokun B.A (HOD) also became external assessors to two Universities in South-Africa: University of Fort Hare & University of Zululand. Supervision and co-supervision of 12 postgraduate projects from 2 Nigerian Universities: University of Lagos & Olabisi Onabanjo University. The

department remained steadfast in its capacity building of University students and research scientists from all the geopolitical zones of the country in 2017. The department continued the implementation of three international grant projects that started in 2016. A total of 4 proposals were written by members of the department in 2017 as principal investors or co-investigators. Five members of the department gained promotion to the next grade levels of the respective cadres. A total of 17 papers were published in peer reviewed journals by members of the department in 2017.

Activities

Guest Speaker, 'Helicobacter pylori's diagnostic testing and sensitivity'. LASUTH medical doctors meeting. 12th April 2017.

- Guest Speaker: Life Science in Nigeria: Limitations, Challenges and The Way Forward :Seminar Organised by Katchey and Company Ltd and held at the Biomedical Training Centre, NIMR
- Facilitator and Workshop Coordinator, 7th Annual Molecular Biology workshop with theme 'Protein Expression'. 7th to 11th 2017.
- Facilitator and Workshop Coordinator ACENTDFB workshop in collaboration with ABU, Zaria with theme 'Species Specific Diagnosis of

- Trypanosomes' 25th to 27th September 2017 Project.
- Oral presentation and Poster Presentation: Smith SI, Jolaiya T, Akindele I, Akum N, Harrison U, Fowora A et al. *Helicobacter pylori* infections in Africa, bacterial virulence factors but lack of pathology. 7th DFG sponsored conference on Partners of German-African grant in Hamburg. May 16th – 21st 2017.
 - Plenary Speaker: Application of Bioinformatics for drug target identification and druggability testing in bacterial and protozoan infections: AvH Kollege. Ladoke Akintola, Osogbo, Osun State. January, 2017.
 - Guest Speaker: The role of medical laboratory scientists in the control of MDR-TB and XDR-TB. Association of Medical Laboratory Science, NIMR Chapter. March, 2017
 - Poster Presentation: Udoh B & Iwalokun BA. *Plasmodium falciparum* genetic diversity and complexity of infection among type 2 diabetes patients from Lagos, Nigeria. Keystone Symposia. April 2017
 - Facilitator: Soil Microbiome metagenomics hands-on-training. Covenant University, Ota, Ogun State. 18 – 28 March, 2017
 - Facilitator and Co-ordinator: Intermediate Bioinformatics Training workshop. NIMR Training Programme. 10-15 June, 2017
 - Oral Presentation: The use of Bioinformatics to test the druggability of novel drug targets in human and zoonotic pathogens: *Mycobacterium leprae* ketoacyl-CoA thiolase (*fadA*). NIMR Seminar Series. 14th June, 2017
 - Quality assurance in animal based experimentation in health research in Nigeria: AN ETHRANET FACTOR- 15 June 2017.
 - Oral Presentation: Diagnosis and Molecular Typing of African *Trypanosoma* species: The use of PCR based techniques. African Centre of Excellence in Neglected Tropical Diseases and Forensic Biotechnology (ACENTDFB) 25 – 27 Sept, 2017
 - Guest Speaker: Personalised Medicine & Bioinformatics, What a correlation. Association of Medical Laboratory Science, Lagos State Chapter, September 2017
 - 1st National conference in Bioscience and sustainability, Crescent University Abeokuta, Ogun State, 15-19 May, 2017.
 - Quality assurance in animal based experimentation in health research in Nigeria: AN ETHRANET FACTOR- 15 June 2017.
 - Wellcome Trust Advanced courses in Molecular Biology: Molecular Approaches to Clinical Microbiology in Africa, University of Cape Town, South Africa. 3-9 September 2017. Participant.
 - Training in systematic review and Meta-analysis, NIMR, Yaba- Lagos, 20-23 November 2017. Participant.
- International PhD Thesis Assessor Position
- Dr. Iwalokun BA – Zululand University
 - Dr. SI Smith – University of Fort Hare, Zululand University
- Msc Thesis
- Dr. S.I. Smith – University of Fort Hare
- Laboratory Strengthening/Infrastructural Development
1. Real Time PCR Machine (AvH Equipment Grant)
 2. Photodocumentation System (AvH Equipment Grant)
 3. Refurbishment of the Molecular epidemiology Laboratory (DFG funding)

4.Horizontal Agarose Gel Electrophoresis System (Self funding) Post graduate Student Project Supervision in 2017 =12

List of some of the students on industrial training = 50 2015 – date

xiii. Dr. Charles Onyekwere, LASUTH, Lagos 2003 – date

xiv. Dr.OlufunmilayoLesi, LUTH, Lagos 2010 – date

xv. Prof. Ngozilbeziako, UNN, Nsukka 2010 – date

xvi. Dr.NmaJiya, Usman danFodio Teaching Hospital, Sokoto 2010 – date

xvii. Dr. Mustapha Bello, University of Maidugari Teaching Hospital 2010– date

xviii. Dr. Augusta Eneh, University of Port Harcourt

Teaching Hospital 2010– date

xix. Dr.MohammedAdeboye, Unilorin, Ilorin 2010– date

xx. Prof. AdebiyiOlowu, Ogun State University Teaching Hosptial 2010– date

xxi. Prof. Timothy Adedoyin, Unilorin 2010– date

xxii. Prof. Edna Iroha, CMUL, Lagos 2010– date

xxiii. Prof. Stephen Oguiche, JUTH, Jos

Collaborations

i. Prof. Rainer Haas, Munich, Germany 2007 - date

ii. Dr. Sascha Braun, Alere Technologies, Germany 2014–2016

iii. Dr. Ralf Ehricht, Alere Technologies, Germany 2014 - 2016

iv. Prof. Roland Ndip, University of Buea, Cameroon 2015– date

v. Prof. Anna Clarke, Univ of Fort Hare, South Africa 2015– date

vi. Prof. Anthony Okoh, Univ of Fort Hare, South Africa 2015 - date

vii. Prof. Dennis Ndububa, OAUTHC, Ile-Ife 1999 - date

viii. Dr.SegunAdekanle, OAUTHC, Ile-Ife 2010 – date

ix. Dr.AdegboyegaAkere, UCH, Ibadan 2010 - date

x. Prof. AderemiAdeleye, Unilag, Akoka 2010 – date

xi. Prof. OlusimboAboaba, Unilag, Akoka 2004 – date

xii. Dr. Rose Ugiagbe, Uniben, Benin 2010– date

xxiv. Prof. Akinyemi, KO, LASU, Lagos 2010– date

xxv. Prof. Oluwadun, A, OOU 1998– date

xxvi. Centre for Proteomics & Genomics Research (CPGR), Cape-Town, South Africa 2015– date

xxvii. National Institute of Cholera and Enteric Diseases, Kolkata, India 2014– date

xxviii. FioCruz, National Institute Infectious Diseases, Rio De Jainerio, Brazil 2016– date

xxix. Robert Koch Institute, Berlin, Germany 2015– date

xxx. Institute of Tropical Medicine, Tubingen University, Germany 2015– date

xxxi. Albany State University, USA 2015– date

xxxii. Dr Tenny Egwuatu, Unilag, Akoka 2015– date

xxxiii. Dr Odumosu Bamidele, Unilag, Akoka 2015– date

xxxiv. Dr Ayeni Funmilola, University of Ibadan 2007– date

xxxv. Dr Oluwajoba Ajado, Yabatech 2008– date

During the year, members of the Department were involved in research activities in the department and other Research Groups in the institute namely; Malaria, HIV/AIDS and TB, Non-Communicable Diseases and Emergency Preparedness and Response (EPR).

ACHIEVEMENTS:

- v The department organized three workshops in Molecular Biology and Proteomics, Trypanosomiasis surveillance capacity building and Bioinformatics.
- v Part of the equipment decay challenges in the department mentioned in the 2016 Annual Report was addressed in 2017 through external grant and stewardship
- v The department received Alexander von Humboldt Equipment grant for the acquisition of one Real Time PCR equipment and one Photodocumentation system
- v The department also acquired an additional horizontal gel electrophoresis system
- v Dr. S.I. Smith successfully hosted and trained for 6 months an ICGEB fellow from Cameroon on identification of inhibitors of *Helicobacter pylori* from Cameroonian medicinal plants
- v Dr S.I. Smith (Director of Research) and Dr. Iwalokun B.A. (HOD) also became external assessors to two Universities in South-Africa: University of Fort Hare and University of Zululand
- v Supervision and co-supervision of 12 postgraduate projects from 2 Nigerian Universities: University of Lagos and Olabisi Onabanjo University
- v The department remained steadfast in its capacity building of University students and research scientists from all the geopolitical zones of the country in 2017.
- v The department continued the implementation of three international grant projects that started in 2016
- v A total of 4 proposals were written by members of the department in 2017 as principal investors or co-investigators
- v A total of 17 papers were published in peer reviewed journals by members of the department in 2017

Completed Proposals

A total of five proposals were completed in 2017. Investigators, funders and grant value

company and subdivisions
d prognosis of activity

470
600
610

PUBLIC HEALTH EPIDEMIOLOGY

DEPARTMENT

The Scientific strategy of the Department focuses mainly on investigating interaction between hosts, pathogens and vectors.

We also conduct research and training that take multifaceted approaches to solving problems in Parasitology, entomology, health system strengthening and Medical Ethics.

A row of microcentrifuge tubes containing a blue liquid, likely a reagent or sample, arranged in a row. The tubes are positioned in the upper half of the page, with the liquid level visible in each. The background is a soft-focus image of a laboratory setting.

PUBLIC HEALTH AND EPIDEMIOLOGY DEPARTMENT

Introduction

The Department of Public Health was rebranded as “Department of Public Health and Epidemiology” in October 2017. The Scientific strategy of the Department focuses mainly on investigating interaction between hosts, pathogens and vectors. We also conduct research and training that take multifaceted approach to solving problems in Parasitology, entomology, health system strengthening and Medical Ethics. These activities are either basic in nature or have implications for more than one disease.

The Department has three units: Molecular Parasitology; Entomology/Vector Control; and Epidemiology/ Health System strengthening.

Research Activities

(I) Parasitology:

In Nigeria, endemic neglected tropical diseases (NTDs) include schistosomiasis, soil transmitted helminths, onchocerciasis, lymphatic filariasis, leprosy, Buruli ulcer, leishmaniasis, dengue fever, dracunculiasis, human African trypanosomiasis and trachoma. A blue print for the elimination of NTDs have been in existence, established by World

Health bodies with private and public partners. Nevertheless, integrated control of NTDs is at its infancy stage in Nigeria. Effort since 2010 is to improve diagnostic facilities. NIMR has since then established a Molecular Parasitology Research Laboratory to contribute to effective control of NTDs in Nigeria. This was done by identifying research gaps and opportunities while focusing activities on current areas of research needs. Our research examines innovative diagnostic method for *buruli ulcer* and strengthened our laboratory capacity for *Buruli Ulcer* Control in Nigeria with the diagnosis of 800samples between January and December 2017.

Our collaboration with the Federal Ministry of Health resulted in the assessment of pre-filariasis elimination in Bekwara and Ikom Local Government Areas of Cross River State. This occur after several rounds of Mass drugs administration (MDA) with oral ivermectin and albendazole tablets or albendazole plus diethylcarbamazine targeting all at risk of onchocerciasis and bancroftian filariasis, Our goal was to determine the appropriate endpoint for the MDA which according to standard protocol is < 2% for the positive cases for the

circulating Filarial Antigen. Filariasis Test Strip was used to detect the presence of Lymphatic Filariasis antigen while the Oncho/LF IgG4 Biplax to detect the presence of Onchocerciasis and LF antibody in whole blood. Of the 2,029 samples from eight communities analysed, 0.9% were positive for FTS, 13.2% were positive for oncho IgG4 Biplax and 1.2% positive for LF IgG4 Biplax. The overall data showed the need for a scale up of the MDA program against these neglected tropical Diseases.

Entomology and Vector Control

As new anti-malaria drugs and insecticides are being developed, so is the malaria parasite and its mosquito vector evolve mechanisms to stay ahead. The emerging threat of insecticide resistance implies that the battle against malaria and other mosquito borne diseases is as important as ever. Our research is to understand the biology underlying insecticides resistance mechanisms as well as studies to improve the delivery of proven, cost effective vector control interventions to reduce the disease burden.

Ongoing entomological surveillance for malaria vector carried out to provide evidence-based Information for effective vector control in Lagos State also showed the abundance aboviral vectors of human diseases in Badagry, Ikorodu and Kosofe LGAs of Lagos State with *Culex quinquefasciatus* (38.5%) and *Aedes aegypti* (31.%) responsible for close to 70% of the mosquitoes population. Data on insecticide susceptibility tests showed continue pyrethroid resistance at Ikorodu and Badagry emphasizing the need for insecticide resistance management as an integral component of Vector Management policy in the country.

A study titled “Understanding the impact of insecticide resistance on the efficacy of long lasting insecticide nets” was concluded in November 2017. This research analysed the effects of insecticide resistance mechanisms on malaria vector control tools in West Africa (Mali, Benin and Nigeria) under different settings using long lasting insecticide nets (LLINs) or indoor residual spraying (IRS). The study in Nigeria, was to assess the performance of LLINs under metabolic resistance mechanism. Overall, the study buttresses on the effectiveness of LLINs. However, in areas with metabolic resistance, the ineffectiveness of the nets was shown by mosquito bites while sleeping under LLINs and presence of live mosquito hanging on LLINs. A policy brief based on the outcome of the study was submitted to the Federal Ministry of Health and shared with relevant stakeholders.

(iii) Epidemiology/ Health System and policy strengthening

The Epidemiology/Health Policy and Systems Strengthening Unit generates relevant data for evidence-based decision making for optimal health of Nigerians. The Unit conducts research on situation analysis of Nigerian health system. Core research activities revolve around the four functions of the health system: Service Provision, Resource generation, Financing and Stewardship. A study on sero-epidemiological and associated risk factors of *Toxocara canis* Infection among preschool children in Osun State showed the need for pre-emptive action against these neglected tropical Diseases. Study from appraisal of the health system emphasize the need for a renew pledge and Government investment to improve the

health system for appropriate service delivery in Nigeria.

Trainings and Conferences = 8

Bench work Experience (B.Sc., M.Sc., Ph.D)

NYSC/Industrial Training Programme = 29

Collaborations

Department of Molecular Parasitology and Tropical Diseases, School of Medicine & Research Center of International Tropical Medicine, College of Medicine 250 Wu-Xing Street, Taipei Medical

University, Taipei, Taiwan.

Molecular Immunology Department, Swiss Tropical and Public Health Institute, Basel, Switzerland.

German Leprosy and Tuberculosis Relief Association (GLRA).

Center for Discovery and Innovation in Parasitic Diseases, Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California, San Diego, USA

National Tuberculosis, Buruli ulcer and Leprosy Control Programme (NTBLCP), Abuja, Nigeria.

Faculty of Medicine, University of Bamako, Bamako, Mali

UK Medical Research Council The Gambia at the London School of Hygiene and Tropical Medicine.

International Institute of Tropical Agriculture Benin Republic

Vector Control Reference Unit, National Institute for Communicable Diseases, Johannesburg, South Africa

Department of Zoology, Faculty of Science,

Obafemi Awolowo University, Ile-Ife, Nigeria.

National Lymphatic Elimination Programme (FMOH)

ANDi Centre of Excellence, Department of Medical Parasitology, College of Medicine, University of Lagos, Idi Araba, Lagos. 2017 Lagos Malaria Indicator Survey and Genomic Studies, September-December 2017.

Achievements

- Certification of NIMR laboratory for the analysis of samples for the elimination of onchocerciasis by the Steering Committee on Neglected Tropical Diseases
- Renovation of the Department and the introduction of electronic access door
- Creation of Insecticide Resistance test laboratory

Grants / Fellowship Awards:

- German Leprosy and Relief Association (GLRA)/Kindermissionswerk Aachen Equipment Grant, 2017.
- Nigerian Institute of Medical Research (NIMR) Grant Award 2017-2018.
- Laureus Sport for Good Foundation Research Grant CHALLENGES High cost of equipment maintenance
- Burroughs-Wellcome Fund Collaborative Research Travel Award (2017), to carry out a study at University of California, San Diego, United States of America.
- SARO AGROSCIENCES Ltd MoU with Nigerian Institute of Medical Research
- Paints and Coating Manufacturers Nig. Ltd. MoU with Nigerian Institute of Medical Research

2018 Goal


- To conduct and enhance research activities that will contribute to the promotion of the well-being and health status of the people of Nigeria.

Challenge

- Funding is the major problem of research activities in NIMR.

Way Forward

- Increase the drive for externally funded projects
- Join networks and consortiums for better accessibility of Grants

The background of the page is a composite image of laboratory glassware. In the foreground, there is a beaker on the left containing a yellow liquid, a graduated cylinder in the center containing a green liquid, and another beaker on the right containing a blue liquid. In the upper right, a hand wearing a white glove is using a pipette to transfer liquid. The top of the page features a decorative geometric pattern with overlapping triangles in shades of teal and green.

CLINICAL DIAGNOSTIC LABORATORY

**CDL is the first public
laboratory to be accredited
by the Medical Laboratory
Science Council of Nigeria**



CLINICAL DIAGNOSTIC LABORATORY

Year 2017 started well with Capacity Building on File maker- Pro for E-result generation for CDL staff in collaboration with Monitoring and Evaluation Unit.

Another feature added to CDL is the acquisition of Architect i 1000 placed by Abbott Diagnostic in conjunction with Advance MediSystems Ltd. The training has been concluded and the equipment is in operation presently. Breast and ovarian cancer tests have been added to the test menu while Spur International staff have been added to the CDL list of food handlers' tests.

CDL is operating under four Units and these include: Haematology, Clinical Chemistry Microbiology/Parasitology and Serology.

CONFERENCES AND WORKSHOPS ATTENDED = 36

PhD Students = 4

Number of students on Internship and IT

No of Medical Laboratory Scientist Interns	3
No of Students on Industrial Training	2

Collaborations and Partnerships with National Microbiology Laboratory Winnipeg Canada

- Antiretroviral Pharmacogenetics Screening to reduce ART Adverse Drug Reactions in HIV Patients in NAUTH, South East and NIMR, South West Nigeria
- Role of Human Leucocyte Antigen class 1 in HIV-1

Transmission in Sero-discordant couples in Nigeria (PhD) project.

ACHIEVEMENTS

- CDL is contributing to NIMR internally generated revenue.
- Quality, reliable and reproducible results are generated in CDL for patients management.
- CDL is contributing to manpower development through internship training of newly graduated Medical Laboratory Scientists, undergraduates' students on industrial attachment the.
- CDL is the first public laboratory to be accredited by the Medical Laboratory Science Council of Nigeria
- CDL is in maintaining public health through screening of food handlers and domestic staff.
- CDL is collaborating with other Research Departments, Divisions and Units.
- One staff of CDL successfully completed a PhD programme
- Medical Fitness tests, Pre-Marital tests, Pre-employment test Occupational Health screening tests, Full and Reduced Comprehensive tests, Food Handlers test and Domestic Servants' test
- National Kit Evaluation (Panel preparation for HIV and Post Market Evaluation): A Medical Laboratory

Scientist from CDL is in the FMOH group for kit evaluation. She is always invited by FMOH whenever there was any kit to evaluate. She was invited four times in 2017. The kit evaluation by the group took place in Zaria.

Architect i1000 immunoassay auto analyser equipment

(Abbot) for Immunoassay, hepatitis B and HIV antibody/antigen was acquired for the unit by NIMR Management through equipment placement. The equipment was installed in the CDL extension lab in Cancer Training centre. Training on the use of the equipment was done as shown below:



Medical Lab Scientists working with the Architect i1000 Abbott auto analyser



Capacity Building for File maker- Pro for E-Result Generation



2018 Goals

- To engage in intensive marketing using the Institute's website, Consult, and handbills
- To reduce the Turn Around Time of our test results
- To increase the tests portfolio/test menu in CDL thereby increasing our income through aggressive marketing
- Advocacy visits to the management for the inclusion of the departmental proposal
- Request for laboratory and office space expansion
- To improve the staff productivity through manpower development (Ph.D, M.Sc, Fellowship, CPD, Local Regional and International Trainings and conferences)

- To communicate more of our research findings through publications in peer review journals
- Establish positions of director based on the new unit
- Request for additional manpower
- Sending applications to the potential sponsors and collaborators
- Training of appropriate CDL Staff on relevant techniques
- Identification of lab spaces for HLA and Andrology services
- Procurement of relevant equipment

MAJOR Challenges

- The space in CDL is inadequate. Previous auditors/Assessors have complained about this inadequate space.
- No Equipment Service/Repair Contract agreement with reputable service Engineers.

SUGGESTIONS ON THE WAY FORWARD

- There is need for expansion of the Lab and office spaces in CDL
- There is need for contract agreement with experienced and competent Equipment Engineers (Biomedical Engineers).
- There is need for recruitment of at least two laboratory technicians. There has been no replacement since Mrs Aisha Issa and Mr Ezra left CDL
- Training and retraining of staff both locally and internationally to be abreast with modern technology
- To improve the staff productivity through manpower development (Ph.D, M.Sc, Fellowship, CPD, Local Regional and International Trainings and conferences)
- To communicate more of our research findings through publications in peer review journals.

ADMINISTRATION

DEPARTMENT





ADMINISTRATION DEPARTMENT

Introduction

The Administration Department in 2017 provided the support services required for the implementation of the Institute's mandate. This involves routine administrative functions like appointments, promotion, discipline, the interpretation and enforcement of the Public Service Rule (PSR), provision of secretarial services to the Institute's Management Committee, provision of legal services, security and insurance cover for all assets, keeping of policy files and updating of staff records. The Administration Department in 2017 carried out the following activities: Staff promotion, Confirmation of Appointment, Transfer of Service/Resignation of Appointments, Absorption of Project Staff, retirement from Service, Training and Development, Industrial Training/Internship/NYSC e.t.c.

Regularization of Appointment

The Institute regularized the appointment of sixty one (61) members of staff with effect from 2nd January, 2015.

Confirmation of Appointment

A total number of sixty one (61) staff of the Institute had their appointments confirmed with effect from 2nd January, 2017.

Resignation of Appointment

A member of staff resigned her appointment from the Institute in 2017.

Staff Promotion

The Institute promoted twenty nine (29) senior staff and Twelve (12) junior staff to their next job grades while four Research Fellows were upgraded to their next job grade in 2017.

Staff Training & Development

One hundred and forty one (141) staff members attended trainings, conferences and seminars within Nigeria while thirty (30) staff did the same abroad.

Corps Members / IT Students in the Institute

The Institute as at December 2017 had fifteen (15) Corps Members for the Compulsory National Service, 80 Industrial Training (IT) Students were granted opportunity to do their IT in the Institute and 8 Bench space students during the year under review.

Year 2018 Goals

- I. To conclude the promotion exercise for 2018 by the end of July
- II. Staff of the Department to undergo relevant training/ workshops/conferences organized by reputable organizations such as ASCON, NIM, CMD, etc.
- III. To source for current and authentic circulars and

guidelines for conducting Government business such as Schemes of Service, Public Service Rules, Procurement Act, Financial Regulations, Audit Manual etc and deploy same to the relevant Department/Units.

- IV. To recruit and select new staff through a transparent process that would yield competent hands to drive the Institute's mission, vision and mandate
- V. To conduct orientation / induction programme especially for new staff
- VI. To facilitate the provision of recreational facilities as a means of promoting unity and oneness among staff. The Department wishes to propose Wednesday as a day set aside for sporting and recreational activities and the re-constitution of a Sports Committee that will re-align the Institute with its counterparts in the Public Service Games as well as the Research Institutes' Games (RIGAN)
- VII. To start the process for the computerization of staff records
- VIII. To curtail to the bearest minimum, the litigations that the Institute is involved in
- IX. To provide qualitative secretarial support to all standing and adhoc committee's within the Institute
- X. To advise Management to pay insurance premium to cover the Institute's asserts ie buildings, vehicles etc which had been neglected.
- XI. To facilitate agreement with collaborators
- XII. To be responsible for the effective understanding of the Institute's personnel management functions such as staff promotions, training and development, salary administration including allowances, leave matters, staff posting, discipline and withdrawal of service in the form of retirement, resignation of appointment, termination, dismissal from service as the case may be as well as staff annual performance

evaluation

- XIII. To ensure that there is industrial harmony in the Institute
- XIV. To acquire adequate office space for carrying out administrative functions.

Challenges

The major challenges that confronted the Administration Department in the year 2017 were:

- i. Lack of training opportunities for its staff.
- ii. Inadequate working materials and equipments such as computer systems, Public Service Rule (PSR), Schemes of Service for use in the Civil Service of the Federation of Nigeria
- iii. Obsolete filing cabinets, tables and chairs.

Recommendation

The Department recommends that its staff should undergo training every year. The Department should be granted approval to conduct at least one in-house training programme per year and Administration staff should have opportunities to attend Workshops/Conferences organized by reputable organizations such as ASCON, NIM or CMD.



NIMR
CONSULT

Corporate Marketing And Communications Outfit of NIMR

Introduction

Against the backdrop of a very challenging business environment with a slow and uneven economic recovery, we delivered a positive performance with net sales growth of 324.31%. We are of the view that the marketing footprint initiatives of 2014, 2015 and 2016 are now yielding the desired outcomes. The cost of sales (COGS) and Selling expenses (SG&A) increased by 154.39% and sales volume grew by over 80% as against annual inflation rate of 16% mainly due to our increased focus on cost of management and marketing, this measure was part of its strategy to drive efficiencies which will help position it for more sustainable growth. The year saw a number of innovations and prominent was the rebranding of NIMR and giving the Consult a new name, Corporate Marketing and Communications. We will continue to work on our strategy to deliver an improved performance in a challenging operating environment as we pray for a purposeful and eventful 2018. We lost Mr. John Ujah to a car mishap (May his gentle soul rest in peace, Amen and Osas Izevbizua was reposted to Finance & Accounts department of the Institute. The staff strength reduced from the initial 7 to 3.

Activities

Facility Marketing and Management:

The Consult team in an attempt to improve on the previous income generated, embarked on aggressive marketing of the Institute facilities; facilities hired were:

- Auditorium, Conference rooms, Open ground for Car park and events, Septic tank truck and Grocery store

- Conversion of the Institutes Conference room for canteen services to serve NIMR staff and the immediate was a welcome development environ; renovation of the facility and service rendering commenced in the year under review by the service provider but contribution to NIMR's bottom line would commence in year 2018 by the service provider.

Clinical & Lab Product Marketing:

We managed the existing clientele and strived to bring on board corporate organizations and HMOs to access NIMR's Clinical and laboratory research services, its marketing drive yielded some results in the year under review.

Relationship management & Fund Sourcing:

Our relationship management skills finally paid off, not only in keeping our existing clients but in increasing our customer base by forging for and building relationships and partnerships with other organizations that would further improve NIMR's deliverables to national development. The Consult would continue to fashion out ways to improve business relations and output. During the period under review, the Consult was involved in few finance/sponsorship committees.

Achievements

We are yet to determine if year 2017 achievement was a land mark one with reference to our sales turnover or the drive for transactions as the department is still in its infant stage, as we look forward to maximizing customer lifetime value.

Year 2018 Goals

Possible collaboration with other institutions and organizations in the area of capacity building if approval is given.

Challenges

- Manpower shortage of staff turnover.
- Auditorium seats get damaged due to the plastic chairs wearing out easily.
- The entrance gate to Biomedical Centre is bad as it affects access to the BMC compound.
- The roof in the Biomedical Centre leaks when rain falls, making a mess of the conference rooms and conveniences.
- Auditorium rest room is in bad shape and out of fashion.

Way Forward/Recommendations

- Payments meant for various expenses should be posted singly/separately and not batched up for easy identification and reconciliation.
- Monetary request should be paid on time because of inflationary trends in the cost of materials.
- The engagement of IT students or Youth Corp members in its operational and marketing activities.
- Periodic replacement of Auditorium seats in batches till all the plastic under-covers are changed to iron sheets, so as to increase the chairs life span and reduce yearly cost of repairs.
- Exhibition stand to be built by the side of the Auditorium, this would increase rental value and attract users.
- Need for a ticket officer either on contract or permanent basis.
- A barrier and a station house to control the inflow of vehicles into the BMC Centre at the entrance.
- Replacement of the Biomedical Centre (BMC) gate, if the present one is beyond repairs.
- The Biomedical Centre needs a 120KVA generating set

to mitigate power interruption, especially when when the 550KVA in the main compound is down.

- Evaluation of the condition of the Biomedical Centre roof to determine repair or replacement of the roofing sheets as the need may be.
- The Auditorium rest rooms needs total revamping to meet present trends and conditions of use.
- The need to place adverts in the yearly Doctor's diary and other avenues of showcasing NIMR brand and mandate.

The background of the page features a close-up photograph of a hand holding a coin, poised to drop it into a stack of other coins. The lighting is warm and golden, creating a sense of value and finance. In the lower-left quadrant, there is a stylized circular logo consisting of a white center, a thin black ring, and a thicker red outer ring.

FINANCE & ACCOUNTS

DEPARTMENT



FINANCE AND ACCOUNTS DEPARTMENT

Introduction

The year 2017 was full of hope and aspirations not just for the Department but all hard working staff whose contributions in numerous ways helped to resolve important financial issues having direct and indirect bearings on the performance of the Department. The Finance and Accounts Department has a staff strength of twenty (20) officers spread across four (4) Units namely – Other Charges, Final Accounts, Budget & Salaries and Treasury; as well as other Sub-Units including CHVG, Clinical Sciences Department and CDL. The major functions performed by the department include the following:

- Maintenance of relevant books of accounts of the Institute
- Budget compilation and defence
- Preparation of Final Accounts of the Institute for External Audit
- Management of Internal and External grants for the Institute
- Supervision and control of stores
- Performance of banking related functions
- Financial Advisory Functions
- Other functions delegated to the Department by the Management

Activities/Projects Executed Under 2017 Work Plan

The projects executed under 2017 work plan include the following:

- Composition of Task Force on posting of 2015 and 2016 Accounts – the Task Force has been able complete the posting of 2015 accounts while partial posting of 2016 was achieved and hoped to continue. The reconciliation of 2015 accounts was expected to be completed in the subsequent year to enable External Auditors to be called in for audit of the Accounts. On the whole, about 51% of the target was met.
- Creation of Accounting codes for Departments and Units – this has been largely achieved for proper monitoring of expenditures under various codes. The target met is 100%.
- Cost reduction on revenue collection – as a result of extensive negotiation with e-Revenue Collection Agent, cost of revenue collection and remittance into NIMR Treasury Single Account was reduced from 6% to 4.5% thereby saving the Institute millions of naira when compared to the preceding year.
- Systems upgrade / Accounting Software Installation for the Department – five computers were upgraded to make them compatible to the new version of *Great*

Plains accounting software that was being installed. However, the work on software installation which includes training for the staff was interrupted due to the challenge of posting accumulated data for 2015 and 2016 caused by the introduction of TSA. The Department hoped to complete the project in the coming year.

- Improvement of Treasury Unit efficiency – in an attempt to re-position the Unit to cope with challenges brought about by new ways of managing finance of the Institute, additional laptops and furniture were purchased for the Unit. The Department hoped to attend to other units in 2018.
- Training / Workshop for staff of the department – all staff of the Department except those on leave benefited from in-house training organised for staff by the Management in 2017. The Acting HOD of the department also attended *International Conference of Accountants and Finance Managers* which took place in Abeokuta during the last quarter of the year. It was a forum that brought Fund Managers in various African countries together which enabled delegates to exchange ideas and experiences of modern techniques of financial management. The benefits

of the workshop to the staff are enormous.

Grant Management

The year also witnessed the creation of Grant Unit to improve the efficiency in managing funds dedicated for carrying out of research which is the mandate of the Institute. The new system allows transfer of research funds to grants account from where Principal Investigators can access the funds to carry out their research. It also allows submission of periodical reports on the progress of on-going and completed research work, as well as better monitoring and supervision of research activities by management.

Financial Highlights

Funding from the Federal Government in 2017, just like in the previous years, was not encouraging. Funds were released to the Institute under *Overheads*, *Capital* and *Personnel*. The analysis below shows funding and budget implementation during the year.

2017 Budget Performance

Budgets	Appropriation (N)	Amount Released (N)
Overheads	32,241,641.00	19,248,233.00
Capital	155,627,508.00	77,813,755.00
Personnel	649,840,871.00	649,840,871.00
Total	837,710,020.00	746,902,859.00

From the table above, there was no significant improvement in funding when compared to the preceding year's budget. Analysis of the budget performance indicates that only 59.7% of the overheads budget was released to the Institute during the year and this was grossly inadequate for operational expenses of the Institute. The percentage release is even lower compared to that of 2016 which was 73%. Also, the capital release is just 50% of the budget and which is lower in terms of percentage release

when compared to that of 2016 which was 64% though the aggregate amount is higher. The consequence is that research, which is the core mandate of the Institute suffers. The personnel budget is 100% funded by the Federal Government and does not make any meaningful impact in this analysis. The Institute could only rely on internal sources of revenue generation to narrow the funding gap. External grants attracted to the Institute during the period amounted to N116.6 million. These grants were purely for

research purposes.

Year 2018 goals

- Completion of Audit of Accounts of the Institute for years 2015 and 2016
- Replacement of old office equipments in the Department
- Staff Motivation with increase in on-the-job trainings for the staff
- Creation and Maintenance of a reliable data base of all NIMR Assets
- Improvement of security of the Department.

Challenges / Way Forward

Inadequate funding remained a major obstacle to moving the Institute to greater heights as the Institute continues to find ways of augmenting the meagre budgetary allocation with revenue from internal sources to finance most of its running costs. A lot of work needs to be done to attract more funds to the Institute (including partnering with

oversea donors and the Nigerian private sector).

The department has old infrastructure that have outlived their usefulness especially the computers. There is need to commence gradual replacement of those infrastructure and hardware for improved efficiency. Finally, the management needs to address manpower shortage in the coming year as those that have left service and not replaced leaves a vacuum that brings undue pressure on existing staff in the Department. In spite of the daunting challenges, the department is poised to record more achievements in the coming year.



INTERNAL AUDIT UNIT

Introduction

Internal Audit Unit of the Nigerian Institute of Medical Research, Yaba is responsible for the internal auditing of the Institute's accounts and those for the Out-station where such exist. The main purpose of Audit is to enable the Internal Auditor to satisfy the Director-General/CEO that an efficient and effective System of Internal Control and Compliance (Internal check, Security and Control of cash and stores, assets etc) and adequate system of accounting as laid down by Financial Regulations and other Financial Circulars are maintained and the books reconciled. The ultimate aim is to ensure that all accounts and vouchers prepared or received are complete themselves. The Internal Auditor should also in addition to the normal auditing process, examine the Internal system of control, security measures, spot checks thereby satisfying himself/herself that adequate measures exist to ensure the observance of the regulations governing the receipts, custody and issue of cash and stores. Mr. Francis Osagiede Director Internal Audit retired from the service of the Institute on attainment of 60 years of age. And Mrs. T. A. Malomo, a Chief Accountant in Finance and Accounts Department of the Institute was deployed from there to Head the Internal Audit

Unit.

Activities

The Internal Audit Unit during the period, processed correspondences most of which focused on providing financial advice, making enquiry, carrying out investigation and other activities as may be directed. Timely response to mails hastened process of decision making and realization of goals and objectives.

The Internal Audit Unit received Inspectors from two different units of the Offices of the Auditor-General for the Federation and Audit monitoring unit of the Office of the Accountant-General of the Federation. Their visits were part of statutory oversight functions which included, ensuring probity, accountability, adherence to relevant financial guidelines in the operations of government transactions. Their missions were successfully carried out after which they had brief exit meeting with management.

Year 2018 goals

- To ensure that the systems for control of Income and expenditure are adequate
- To ensure that accounting records are properly and

accurately kept

Challenges

The unit in its quest to deliver on the mandate of the Institute is however, faced with some challenges namely:-

- Lack of continuous training of staff in the Unit, which greatly hampered the speed and quality of the Unit's performance.
- Office space constraint
- Obsolete equipment/inadequate office equipment
- Inadequate technical staff

Recommendations

In view of the importance of Internal Audit Unit to the Institute, the Director-General/CEO may wish to consider the following needs of the Unit to make it more efficient and effective in its roles:

- Training of staff in the unit be given priority
- Adequate technical staff should be deployed/employed for the unit
- New equipment should be provided to enhance the unit performance of the Unit has adopted e-system

Ethics ards Values

INSTITUTIONAL REVIEW BOARD (IRB)

Introduction

The year 2017 marked the beginning of a new era in the life of the NIMR –IRB. The Director General of the Institute, Prof. Babatunde Salako, based on the powers conferred on him as the Chief Executive Officer of the Institute by the National Health Research Ethics (NHREC) Code, reconstituted the Board. This was based on the fact that a large number of the board members of the last board have exceeded the term limit allowed by the constitution of NIMR-IRB. The new committee immediately hit the ground running to ensure that the lofty height attained by the NIMR-IRB is maintained. It is important to note that NIMR-IRB, in 2004, became the first in country ethics committee to have a Federal Wide Assurance number. It went further to obtain a grant with which it trained Chairmen, Secretaries and members of a number of ethics committee that were newly established all over the country. Since then, NIMR-IRB has remained a pacesetter and in the fore front of providing support for other ethics committees in the country. In this report, we project the 2017 activities, success and challenge with the stakeholders in the research enterprise. Professor Babatunde Lawal Salako, the Director General approved the reconstitution of the new NIMR-IRB and inaugurated it on the 1st Sept., 2016. The Board consists of sixteen (16) members including eight (8)

members of the previous board yet to complete their term and eight (8) newly nominated members who were to serve on the board. Dr. Oliver Ezechi, Obstetrician Gynaecologist and Public health expert was appointed the new Board Chairman and Mrs. Olayemi Nwogbe an Information Scientist as a Member/Administrative Secretary. In keeping with the bye laws of the Board, the members elected Dr. Agatha David, a Paediatrician and Dr. Tajudeen Bamidele, a Microbiologist as Vice Chairman and Assistant Secretary respectively on the 23rd March, 2017.

Activities

A total of fifty (50) protocols were submitted to NIMR-IRB in the year 2017 for review. Of the protocols forty-seven (47) were approved, one (1) dropped and two (2) are still ongoing. The research protocols were of four categories:

- i) NIMR staff protocols
- ii) Non NIMR staff (individuals) protocols
- iii) NGO/CSO and multinational organizations protocols
- iv) Students from various universities and polytechnics.

Collaborations

The Board was involved in a number of collaborative activities with the following organization and bodies;

- i. New HIV and Microbicides Advocacy Society (NHVMAS),
- ii. South African Research Ethics Training Initiatives (SARETI),
- iii. West African Bioethics Training Programme (WABTP),
- iv. National Health Research Ethics Committee (NHREC}
- v. WATERS, Senegal

Year 2018 goals

- i. Capacity-building for members of the Board
- ii. Appointment of new external reviewers
- iii. Training for Secretariat staff
- iv. Computerization of administrative/secretariat procedures

- v. Increase awareness on ethics of research and good research practice for stakeholders

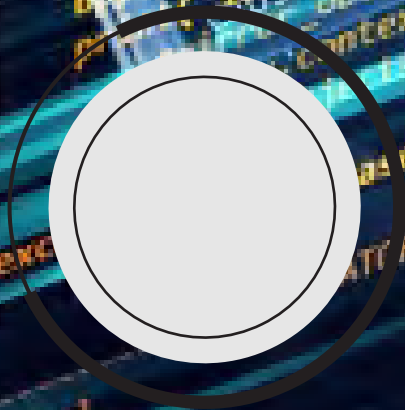
Challenges

- i. Undue delay of protocol reviews
- ii. IRB Shopping
- iii. Poor knowledge of researchers on good research and ethics practices

Way Forward

- i. Renovation and equipping of the IRB secretariat
- ii. Automation of the IRB process
- iii. Training and retraining of IRB staff and members

LIBRARY AND INFORMATION TECHNOLOGY DEPARTMENT





LIBRARY AND INFORMATION TECHNOLOGY DEPARTMENT

Introduction

In July 2017, the department of Library and Information Technology was established following the merging of ICT and Library divisions by the Management. The department is charged with the responsibility of providing timely and relevant information for the research scientists in the Institute as well as other scientists nationwide. In addition to this, the department is charged with the responsibility of carrying out repairs and maintenance of computer systems, provision of Internet services, network administration, web management, multi-media support and desktop publishing.

Achievements

The accomplishment of the department during the year includes: compilation of bibliography on topical health issues in Nigeria such as HIV/AIDS, Diabetes 2010-2016, Diarrhoea 2003-2015, Ebola 2014-2017. A total of 481 users were attended to while data entries for all the textbooks in the library were completed. Compilation and publishing of 2017 Institutional Annual Report, installation, diagnoses, repairs and maintenance of computer systems, accessories, in-house repairs and binding of mutilated books, scanning of topical health issues in the National dailies (The Guardian and the Punch) were done

during the year. Weeding of obsolete material from the library, completion of compendium of NIMR Research staff publications 1970-2016 was successfully carried out. Extension of Internet facility to clinical sciences and department and center for Human Virology and Genomics was accomplished.

In the area of capacity building, in-house training was organized for staff of the department likewise computer skill training was done for NIMR staff between 21st – 24th August, 2017. The IT unit of the department provided all year round multimedia support services to seminars, conferences and other events.

Activities

The routine activities of the Department includes: Accessioning, Cataloguing and Classification of Information Resources, Selective Dissemination of Information, provision of current awareness services, conducting of electronic literature search for researchers and other library users, scanning and display of table of content of journals received. Others are; installation, diagnoses, repairs and maintenance of computer systems and accessories, weeding of obsolete material from the library shelves, acquisition and updating of relevant software tools and regular media update of the institute events.

Challenges

- Inadequate funding
- Inadequate office space for staff and library operation.
- There is no functional photocopier in the library.
- The library application management software requires update.
- Inadequate ICT facilities such as computer, scanner, multimedia, printer.
- Low Internet bandwidth
- Inadequate ICT Staff
- Lack of Capacity Building

Way Forward

- Adequate funding of the Department
- Provision of adequate workspace.
- Provision of functional photocopier
- The present library application software should be paid for and upgraded to an online version.
- Provision of modern ICT facilities/ infrastructure such as computer, scanner, multimedia, printer.
- Increase the current Internet bandwidth (from 2 mega bit download / 2 mega bit upload).
- Employment of more ICT staff.
- Staff training & retraining.

No. of Conferences / Workshops Attended = 7

Students on Industrial Training Programmes = 2

Award

Olayemi, O. M. Health Library Group (HLG) International Award & Travel Bursary to United Kingdom. June 30th - July 16th, 2017.

Year 2018 Goals

- To acquire, process and document relevant information resources
- Ensure proper documentation, publication and information dissemination
- Updating and compilation of staff bibliographies and publication compendium
- Continual sourcing of grants, fellowship etc for researchers
- Provision of reference and current awareness
- Selective dissemination information service
- Compilation & Updating bibliographies on topical health subjects such as ulcer, monkey pox, and diarrhoea.
- Compilation and publishing of 2017 Institutional Annual Report
- Compilation and publishing of 2017 Institutional Newsletter
- Expansion of internet facility within the Institute
- Management and maintenance of institute website
- Provision of network security
- Organization of in-house training for staff
- Network configuration, administration and maintenance
- Trainings/capacity building for staff on global trends.
- Increase the current internet bandwidth
- Collation of manuscripts for publication



MONITORING & EVALUATION UNIT AND GRANT MANAGEMENT

Introduction

The Monitoring and Evaluation Unit is charged with providing statistical support, coordinating and supporting Data management, Grant management and Monitoring & Evaluation activities for the various Departments and Units in NIMR. These include the design of data collection tools, database design, data collection, data entry, determine M & E indicators to track and evaluate projects and research processes and activities as well as grant management. Furthermore, we support the institute in analysis of data, generation of reports, use of monitoring and evaluation report to improve research processes and activities in order to achieve set objectives.

The Unit is divided into 3 Sub-Units which include: Biostatistics, M&E and Data Management. There is also a stand-alone Unit called Grant Management Unit.

Activities

1. Monitoring & Evaluation Unit

a. Statistical Support

- Study designs, sample size calculation, design of data collection tools, data collection and application of statistical techniques in analysis of routine and special studies data within NIMR and in collaboration with

other researchers within and outside the country.

- Analysis, interpretation and presentation of statistical results.
- Reviewing statistical sections of grant proposals or scientific papers.

b. Monitoring and Evaluation

- Develop and maintain standardized M&E systems in all Units and Departments in the Institute.
- Ensure adherence to program/project plans, track activities and assess project performance.
- Evaluate project/program impact and generate strategic information and measurement & monitoring and evaluation reports that will aid decision making.
- Reports on NIMR activities as requested from DPRS, FMOH and funders.
- Review and Monitor the implementation of the annual work plan of Departments and Units.
- Review and Monitor the implementation of the Strategic Institute's Plan.

c. Data Management

- Database design and maintenance.
- Cleaning, updating and organizing data generated from different divisions/units.
- Automate generation of routine queries.

- Support generation of necessary Reports.

d. Reports

- The Unit prepares bi-annual and annual M&E reports of the Institute on projects, programmes, Divisional/Unit's activities to both NIMR management and FMOH.

2. Grants Management Unit

- Grant management and compliance.
- Drafting, negotiating, interpreting and executing contracts with sub recipients and consultants.
- Evaluation of grant performance, regular technical and financial reports to funders and liaising with sub awardees and grantees.
- Maintain NIMR's SAM, Grant.gov and eRA-Commons registration updates and other platforms.
- Submission of grant proposals to respective platforms.
- Collate and review call for proposal within the institute.
- Issue out award letters and grants to researchers in the institute.

Grants Awarded To Members of Staff In 2017

1. Topic: A Study Investigating the Risk Factors and Treatment Outcome in Patients with Multiple Drug Resistant TB in Nigeria.
Date of Issue: 20/10/2017
Award No: 1NIMRGA001-17-01
Amount: N1,782,000
Recipient: Dr. Titi Gbajiamila
2. Topic: Scaling up Research and Diagnosis of Buruli Ulcer to enhance activities of the National Control Program.
Date of Issue: 20/10/2017

Award No: 1NIMRGA002-17-01

Amount: N4,400,000.00

Recipient: Dr. Olaoluwa Akinwale

3. Topic: Characterizing Virus Dynamics and Population Immune to the Poliovirus in the Difficult-To-Reach Areas in Nigeria and Setting up a Virology Unit for Tissue Culture in NIMR.

Date of Issue: 06/11/2017

Award No: 1NIMRGA003-17-01

Amount: N7,000,000.00

Recipient: Dr. Audu Rosemary

4. Topic: Assessment of Capacity Building for Experimental Animal models for Research among Young Researchers.

Date of Issue: 14/12/2017

Award No: 1NIMRGA007-17-01

Amount: N2,000,000.00

Recipient: Dr. Aina O

Ongoing Research Grants in the Unit

- I. Study on Prevalence of HIV & AIDS among road transport workers and the associated risk factors supported by Lagos State AIDS control agency.
Ongoing
Principal Investigator: Dr. A.Z Musa
- ii. The H3 Africa Kidney Disease Cohort Study supported by NIH.
Ongoing
Principal Investigator: Dr. A.Z Musa

Industrial Training Student (2)

Intern(s) (2)

Research Projects Supported

Completed

- Assessment of challenges faced by Internally Displaced persons in Nigeria.
- Validation and Piloting the use of Dried Blood Spot Samples for Viral Load Assays, using the Roche Free Virus Elution Protocol in Nigeria.

Ongoing

- Gender based Violence among School Children.
- Community survey of causes of Childhood Mortality in Nigeria.
- Performance of Different Hepatitis B Virus (HBV) Diagnostic Tools in Detecting Low Level HBV Viremia.
- Bacterial Vaginosis among patients in NIMR Clinic Diagnostic Laboratory.
- Impact of single dose Praziquantel treatment on schistosomiasis heamatobium among school children in an endemic Nigerian community.
- National Survey on HPV. *Completed*
- Three-monthly analysis of NIMR Manpower Statistics
- Therapeutic Efficacy of Artemether-Lumefantrine, Artesunate-Amodiaquine, and Dihydroartemisinin Piperaquine for the treatment of uncomplicated *Plasmodium falciparum* Malaria in Nigerian Children
- Entomological Surveillance in Nigeria

Challenges

- Inadequate manpower - This has grossly limited the activities of the unit.

Way Forward

- Employment of additional competent staff.
- Purchase of licensed statistical packages.
- Have designated M and E focal persons from each department and unit that will be liaising with the unit to achieve the set objectives.



Procurement management

PROCUREMENT UNIT

Introduction

The procurement unit was established in 2012 and commenced full operation in 2013. The objective of the Procurement Unit is to obtain the best possible value for money on behalf of the Federal Government of Nigeria while rigorously maintaining the procuring entity's business principles and agreement under which it operates. It is the bureau's policy that services, materials and equipment should be acquired by procuring entities at the most favourable terms compatible with desired quality delivery requirements, taking account of total life cycle costs and in a manner that safeguards and preserves the reputation of the procuring entity.

Activities

The unit ensures standardized operational process in the procurement of goods, works and services.

- i. Procurement of Laboratory equipment's.
- ii. Procurement of other office furniture, equipment's and other consumables.
- iii. It ensures zero tolerance on white elephant project, deception, avoidable delays and non-transparency in the procurement of goods, works and services.
- iv. Procurement laid down threshold is followed as spelt out in the procurement Act.

- v. Improved procurement documentation.
- vi. Proper use of Procurement Plan.

Year 2018 Goals

1. To ensure timely and efficient procurement of goods, works or services for the institute.
2. To ensure safety of public funds in the procurement process.
3. To ensure that all qualified bidders are given equal opportunity to compete.
4. To ensure transparent, timely, equitable and accountable procurement process.
5. To ensure that the development of local contractors is encouraged in the procurement process.


Challenges

The key challenge in the procurement process is delay in the release of budget allocation.

Recommendations

The need to enlarge the pool of contractors that compete for public contracts so as to produce competent contractors who can provide the desired needs, works and services at the best price, right quality, right quantity, from the right source and at the right time.

WORKS & MAINTENANCE DEPARTMENT



Is saddled with the responsibilities of ensuring the servicing and maintenance of the existing Institute's Infrastructure by way of regular and normal duty schedules of its Civil (Carpentry, Masonry and Plumbing), Electrical/Electronics, Refrigeration and Air-conditioning, Transport, Environmental and Biomedical Division and Units respectively.



WORKS & MAINTENANCE DEPARTMENT

Introduction

The Works and Maintenance Department comprises Civil, Electrical/Electronics, Refrigeration, and Air-conditioning, Transport, Environmental and Biomedical Engineering divisions and units. The Works and Maintenance Department is saddled with the responsibilities of ensuring the servicing and maintenance of the existing Institute's Infrastructure by way of regular and normal duty schedules of its Civil (Carpentry, Masonry and Plumbing), Electrical/Electronics, Refrigeration and Air-conditioning, Transport, Environmental and Biomedical Division and units respectively. These responsibilities under the schedules mentioned above entail the repairs of reportedly faulty air- conditioners/refrigerators, weak block walls, spoilt furniture, replacement of sanitary wares and appurtenances, incinerating of biomedical wastes, replacement of burnt electrical fittings such as fluorescent tubes, chokes, starters, sockets, plugs, cables etc. The routine service cuts across all the building infrastructure in the Administration Block, Auditorium Building, Main Laboratory Complex, Works and Maintenance, Centre for Human Virology Genomics, Molecular Biology and Biotechnology, Clinical Science Research, Centre for TB Research, Clinical Diagnostic Laboratory, Residential Buildings etc. Supervision of the maintenance service of the

entire Institute's plants e.g. Generators, Water pumps, Biomedical Waste Incinerator, Cold and Hot Rooms, Automobile Vehicles, Electronic Equipment, Cleaning and Gardening Services.

Activities

Annual Maintenance Service Contracts

The Service Contracts through signed agreements existing between the Institute and professional private participators (Vendors) are as follow:

- i. Cleaning Services – RANSTOJAN Nig. Limited
- ii. Biomedical Wastes Incinerator and Autoclaves Servicing – EMIS Engineering Limited
- iii. Priority Feeder Line/Equipment – DAT Investments Co. Ltd

All the above mentioned services were excellently executed to satisfaction throughout the year under review.

Routine Maintenance Services

The routine maintenance services undertaken cut across the entire Civil, Electrical/Electronics, Biomedical, Transport, Environmental and Refrigeration/Air-conditioning Divisions and Units making up the Department. The activities of each Division and Unit for the year 2017 are as given below.

- a) Civil Engineering Division

- Re – Branding of NIMR Main entrance gate, Fence wall Tiles to all old existing external walls and provision of new Metal Security gate (strong & durable)
- External repairs and painting of 3 blocks A, B, C of the staff residential quarters.
- Repairs of Administration block's Toilets facilities, (including plumbing axillaries, Tiling & carpentry work).
- Replacement of some overhead water tanks in both Admin. & Block C residential quarters.
- Renovation /Repairs of block of flats, Block B, Flat 3, Block C flat 6, Medical compound.
- Major restructuring and construction work done in formal Mouse Colony, now called Animal House.
- Refurbishing of all principal officers' office furniture.
- Introduction of modern Automation Electric collapsible gate pass with C.C.T.V and Access control doors at various strategic places e.g. PH&E Department, Microbiology Department, CHLVG and CTBR.

Electrical Division Unit

This unit is in charge of all the electrical equipment used to generate, transmit and distribute power to offices, laboratories and residential quarters. They also maintain the lighting system in the above mentioned areas including the security light.

- Carrying out proactive, preventive, corrective and general services of the institute's plants in line with the manufacturer's recommendation.
- Rectification of all electrical faults in the institute laboratories including the equipment.
- Monitoring and supervision of the institute priority feeder contractor in the maintenance of the High Tension (H.T) line, High Tension circuit breakers, Transformers, and the ring main unit

- Maintenance and Servicing of all the Generators for continuous and optimal performance.
- Ensuring steady Power Supply to all offices, Laboratories and Residence.
- Reducing down/response time arising from fault rectification.
- Ensuring electrical load balancing in each phase etc.
- Constant monitoring of the Low Tension lines to effect repairs.
- Replacement of all nonfunctional electric bulbs in the lab complex.
- Constant maintenance of the security lightings.
- Restoration of the security lights in medical compound and Biomedical Training and cancer research centre.
- Repair of cold room.
- Replacement of the faulty Red 500KVA Generator AVR and Diodes.

The Transport Division

All Institute's vehicles were serviced as at when due throughout 2017

- 5 New 75A batteries were purchased for different Institute's cars.
- 8 New tyres were bought for the institute's bus and white Corolla.
- All faults were cleared with vehicles designated as broken down mechanically throughout the year.
- All mobility Logistics were attended to, throughout the year.

Refrigeration & Air-Conditioning Unit

- All refrigerators, Air conditioners and Deep Freezers in all Laboratories, and Offices reportedly faulty were repaired throughout the year.
- Routine servicing of all the A.Cs according to maintenance roster.
- Installation of new A.Cs in some labs.

Biomedical Unit

- The Biomedical Incinerator, Autoclaves, Centrifuges, Incubators, Water Baths, Ovens, Bead crusher, Spectrophotometer, Microscope, ELISA reader and other Laboratory equipment reportedly faulty were maintained.

Environmental Unit

- Repair of NIMR male and female wing D.O.T Public Toilet for better services.
- Effective supervision and monitoring of the contractor, for daily cleaning of the environment, the existing office facilities, trimming of the flowers, cutting off the plants/trees under the high tension, and the drainage network in NIMR premises.
- Effective supervision of 'LAWMA' for regular disposal of all the loose/packaged solid wastes generated at the offices, laboratories, & residences in NIMR
- Effective control of indiscriminate dumping and burning of items within the NIMR compound especially around the refuse dump side.
- Effective supervision and monitoring of the cleaning of NIMR existing public toilets under lab complex.

Year 2018 Goals

- To be contributive to boosting IGR for the Institute through commercialization of the Incinerator, Welding workshop and water fountains as car wash.
- To have a new unit called Environmental Unit; to upgrade Electrical Division to Electrical/Electronic Division and R/A Unit to Mechanical/R&A Unit.
- Under Environmental Sanitation, to put in place a signed agreement for Fumigation Service Contract.
- Improved maintenance strategies test of time.

Challenges

Inadequate Manpower – The R/A division seriously has inadequate manpower as there are only two staff in the division and looking at the enormous task and the physical strength required for the work as Air Conditioners and Refrigerators (Fridges and Freezers) have to be moved from various divisions to the workshop where they will be worked on.

Works & Maintenance is also presently under staffed in her Electrical Division. In the last half decade, the five (5) of Electricians that retired are yet to be replaced.

Lack of Consumables – Consumables such as Neon gas, Oxygen etc. ought to be available in the Institute's store for easy access. But, there is no stock of consumables at all in the Institute's Central Store.

The image features a collage of books. At the top, there is a geometric pattern of overlapping triangles in shades of teal, green, and blue. Below this, a blurred background shows the spines of books on a shelf. In the foreground, several open books are visible, showing their pages. The text 'RESEARCH PUBLICATIONS' is overlaid in a bold, red, sans-serif font. The bottom of the image has a dark teal footer with white text.

RESEARCH PUBLICATIONS

RESEARCH PUBLICATIONS FOR 2017

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