

NIMR AS AN ASSET TO THE CERHI PROJECT

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The Institute

- Oldest Research health Institute in the country
- History dates back to the arrival at Yaba of the British Yellow fever Mission in the first decade of the 20th Century
 - Affiliate of the MRC, UK
 - Monitoring and Surveillance of Yellow fever
- 1954 - West African Council of Medical Research
- 1960 - Medical Research Council of Nigeria [NCRCN]
- 1977 – National Institute of Medical Research
- 1993 – Nigerian Institute of Medical Research

The Institute..2

- **Vision**

To be an Institute of excellence in basic, applied and operational research for the promotion of national health and development

- **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 ministries , academia and organized private sector

Our mandate (Enabling Act 1977)

- Stipulates that the Institute shall conduct research into health problems in the country essentially in the following areas;
 - Communicable diseases of public health importance
 - Non communicable diseases prevalent in the country
 - Basic, applied and operation research for the prevention and control of diseases endemic in the country in cooperation with Ministries
 - Develop capacities for clinical and biomedical research in collaboration with academia
 - Disseminate the results of health research in the country through training, publications, conference , workshops and other communication channels to the Ministries, relevant stakeholders as well as the general public

Research Groups

- The Institutes achieve the mandate through 9 research groups;
 1. Communicable diseases
 2. Neglected tropical diseases
 3. Maternal, Reproductive and Child Health
 4. Malaria
 5. HIV/TB
 6. Health System and Policy
 7. Immunology and Vaccinology
 8. Clinical Trials
 9. Emergency preparedness and Response

- In line with the mandate of Institute, NIMR will provide support in:
- Research
- Capacity building
- Strong Laboratory support
- Technical Expertise
- Innovation

Research

- Personnel and Equipment support in the field of:
- Genetics
- Molecular Biology
- Virology
- Biochemistry
- Maternal and Child health

NIMR UNIQUE POINTS

- OVER 22,000 PATIENTS MANAGED IN THE UNIT'S CLINIC
- BSL 3 LABORATORY
- FIVE STAR HVL LABORATORY
- HOUSES COBAS 4800 HPV DETECTION AND TYPING MACHINE -THE ONLY IN WEST AFRICA AND ONE OF 3 IN AFRICA
- MODERN CUTTING EDGE TECHNOLOGY such as:
 - -Real time PCR
 - -Auto-analysers in the New Biomedical Training and Cancer Research centre

OTHER UNIQUE POINTS

- INSTITUTIONAL REVIEW BOARD (IRB) THAT HAS NATIONAL ACCREDITATION
- INSTITUTIONAL BIOSAFETY COMMITTEE(IBC)- IN THE PROCESS OF BEING ENACTED
- NATIONAL REF LAB FOR TB
- RESEARCH DIVISIONS WITH EXPERTS COVERING ALL ASPECTS OF REPRODUCTIVE HEALTH

OTHER UNIQUE POINTS- COLLABORATION

- COLLABORATIVE PARTNERSHIP WITH THE FOLLOWING INSTITUTIONS:
- CDC
- WHO
- WAHO(WEST AFRICAN HEALTH ORGANIZATION)
- HARVARD SCHOOL OF PUBLIC HEALTH
- NORTHWESTERN UNIVERSITY
- EMROY UNIVERSITY
- MEMBERSHIP OF IANPHI

COBAS 4800



THE NEW BIOMEDICAL TRAINING



NIMR –SOME COMPLETED/ ONGOING RESEARCH WORK

- MICROBICIDE CLINICAL TRIAL
- NATIONAL CERVICAL PRECANCER AND CANCER SURVEY-
WITH HPV GENOTYPING
- NATIONAL SURVEY OF THE CAUSES OF UNDER 5 MORTALITY
- EPIDEMIOLOGY AND TREATMENT OUTCOME OF HIV/TB
COINFECTION WITH RESISTANCE STUDIES
- NATIONAL SURVEY ON THE RISK FACTORS AND CAUSES OF
SUDDEN DEATH
- NATIONAL SURVEY ON ALCHOL USE IN PREGNANCY AND
SUNDRY EFFECT
- EMERGENCY PREPAREDNESS AND DISASTER
MANAGEMENT IN THE COUNTRY

SHARING EXPERIENCE WITH THE NATIONAL HPV -PROJECT

- HPV vaccines offer the best protection to girls who receive all three vaccine doses and have time to develop an immune response before being sexually active
- In 2011, National policy on cervical cancer prevention and control recommended HPV vaccination for preteen girls at age 9-15 years
 - Two vaccines (Cervarix [16,18] and Gardasil [6,11,16,18]) protect against cervical cancers in women

Level of in-country evidence

- Circulating HR HPV infection in the country is not conclusively known
- The role of HPV types to cervical cancer in Nigeria is not conclusively known
- The impact of HIV burden on HPV burden and distribution is not known
- Effectiveness of the currently available HPV vaccine among Nigerians is not known

NIMR's Role in Filling the Knowledge Gaps

1. Established in-country capacity for the typing of HPV genotype
 - Manual genotyping of HPV types at the molecular biology laboratory
 - Purchased and Installed COBAS 4800 analyser for automated genotyping of HPV at the Human Virology Laboratory
 - Staff trained on the use of both Technique



NIMR's Role in Filling the Knowledge Gaps...2

2. Conducted a Pilot study to determine
 - Burden and distribution of HR HPV in Lagos and Ogun state
 - Determined the effect of HIV on the burden and distribution of HR HPV
 - Compared the result of both manual PCR and automated PCR method of detecting HR HPV

Nation wide survey planned

- General Objectives
 - To characterize the prevalence of conditions that precede cancer of the cervix in Nigerian women, with a view to determining the relative risk toward developing cancer of the cervix in various locations across the country and informing primary and secondary control of both cancers.

Critical research questions

- It is hoped that this survey will provide insight into answering a number of pertinent questions, including;
 - How prevalent are the precursors and early stages of cancer of the cervix in various parts of Nigeria?
 - Why does cancer of the cervix occur frequently in Nigeria?
 - How common is HPV infection across Nigeria, and is its pattern congruent with that of the precursor of cancer of cervix?
 - What HPV types are most prevalent and most associated with pre-cervical cancer conditions?
- The answers accruing to these questions will inform policies and strategies for controlling the currently huge burden of cervical cancer in Nigeria.

- The envisaged database that will derive from this nation-wide “mapping” of high-risk HPV-DNA will also inform a Nigerian government stand on the consideration of routine vaccination of young Nigerian females against Human Papilloma Virus (HPV) - the identified cause of cervical cancer, and indicate which type of vaccine, whether bi- or quadri-valent, is appropriate for Nigerian use.

- The combined use of cervical cytology and high-risk human papilloma virus (HPV) DNA testing, otherwise called “co-testing”, has been shown by multiple randomized trials to be superior to cytology alone, including having higher sensitivity at detecting cervical intraepithelial neoplasia grade 3