

DEPARTMENT OF COMMUNITY MEDICINE  
FACULTY OF MEDICAL SCIENCES  
COLLEGE OF MEDICINE  
UNIVERSITY OF NIGERIA, ENUGU CAMPUS

MASTER OF PUBLIC HEALTH (MPH) PROGRAMME  
REVISED CURRICULUM  
MARCH, 2018

## PHILOSOPHY

In 1970 the Department of Community Medicine was established to train the medical students. This department became one of the first departments to be established in College of Medicine, University of Nigeria Enugu Campus. Several years later, there was need to provide increasing support to issues of public health and train more public health personnel. Hence a postgraduate program Master of Public Health (MPH) programme was established in 1998. The MPH programme was designed to train public health personnel to carry out proper planning, implementation, management and evaluation of health programmes in Nigeria. This program has continued to succeed in its mission of providing the needed manpower in public health.

In the past years there have been serious and repeated local outbreaks of diseases like Yellow Fever, Cerebrospinal Meningitis, Cholera, AIDS, Ebola, Measles, etc. Other preventable non-communicable diseases like injuries, cancers and cardiovascular diseases are now on the increase. Clusters of factories and industries are springing up, creating uncontrolled environmental pollution and degradation. There are increasing challenges with health systems governance and management, while the problems of internally displaced persons and migration, and globalisation. These situations are changing the global and local health landscape.

Currently, a pressing need exists to expand the human resource capacity for public health in order to meet the practical health-related challenges in Nigeria and in other developing countries of the world. This is especially so, as the world transits from a modest achievement of its Millennium Development Goals to more ambitious but well-articulated Sustainable Development Goals, which demand the attainment of Universal Health Coverage. Consequently, there is both the need for more public health experts and also for better knowledge and skill for improved public health practice. The changing nature of disease patterns also necessitates deeper appreciation of public health scope, concepts and methods.

In line with its mandate of providing quality training in Public Health, the Department of Community Medicine, Faculty of Medical Sciences, College of Medicine, University of Nigeria, Enugu Campus proposes to revise the existing curriculum for the postgraduate degree programme in Public Health leading to the award of the Master Public Health (MPH) Degree. The course description, content and structure are presented below.

## LIST OF APPROVED SUPERVISORS

<b>PROFESSORS</b>	<b>UNITS</b>
B.S.C. Uzochukwu BMBCH, DPA, MPH, FWACP	Health Systems, Policy & Management Unit
C. N. Onwasigwe MBBS, FWACP, FMCPH	Epidemiology & Biostatistics
M. N. Aghaji MBBS, FWACP	Epidemiology & Biostatistics
T.A. Okeke MBBS, DPH, FMCPH	Environmental & Occupational Health
E. N. Aguwa MBSS, MPH, FWCP, FMCPH	Environmental & Occupational Health
<b>ASSOCIATE PROFESSOR</b>	

D.F.E. Nwagbo B.Sc., DLSHTM, M.Sc.	Epidemiology & Biostatistics
<b>SENIOR LECTURERS</b>	
A. C. Ndu MBBS, MPH, FWACP	Health Systems, Policy & Management Unit
I. B. Omotowo MBBS, MPH, FWCP	Epidemiology & Biostatistics
U. E. Ezeoke MBBS, MPH, FMCPH	Primary Health Care and Health Promotion Unit
O. C. Ekwueme MBBS, MPH, FMCPH	Primary Health Care and Health Promotion Unit
E. A. Nwobi MBBS, MPH, FMCPH	Environmental & Occupational Health
C. A. Onoka MBBS, DLSHTM, MPH, M.Sc., FWACP, PhD	Health Systems, Policy & Management Unit
I. E. Obi MBBS, MPH, FMCPH	Primary Health Care and Health Promotion Unit

## OBJECTIVES AND SCOPE OF THE MPH PROGRAMME

<b>Course objectives</b>	At the end of the programme, students are expected to have been equipped with the conceptual and practical skills to design, evaluate and communicate public health interventions that promote health within communities.
<b>Target Audience</b>	The MPH programme is designed for medical and allied health professionals who desire a broad general knowledge of public health concepts, necessary for promotion of health in their practice. Hence, it is of immense value to people who are interested in incorporating and applying public health related principles in various fields of work.
<b>Entry requirements</b>	Applicants must hold a degree in Medicine, Dentistry or Veterinary medicine from a recognized university or have a minimum CGPA of 2.5 (second class lower) on a 5-point scale in the biological and health related sciences from the University of Nigeria or any other University approved by senate. A selection test will be necessary for candidates before admission into the programme. Public health-related work or research experience will be an added advantage. Candidates who are considered unable to undertake the programme will be advised to change to other courses.
<b>Mode of study</b>	The degree shall be executed by course work to be examined in written papers together with a research project to be presented as a project report, where course work predominates over research work. To obtain the MPH degree, a candidate must satisfy a minimum of 27 units made up as follows: 17 units of Compulsory Courses, 2 unit of Elective courses and 8 units of Project.
<b>Duration of programme</b>	Full-time students shall spend a minimum of 2 calendar years and maximum of 3 calendar years. Part-time students shall spend a minimum of 36 calendar months and maximum of 5 years.

<b>Graduate attributes</b>	Graduates are expected to possess good public health knowledge and application skills, be inquiry focused, and be autonomous as well as good team players. They should be skilled communicators, have interpersonal flexibility good engagement capabilities. The candidates will be highly employable in the public health industry and leaders in the society. They should possess intellectual curiosity, creativity, problem-solving ability, and independent thought. Graduates should be able to work with teams to initiate and undertake research in various areas of public health.
<b>Competencies</b>	By graduation, students will have obtained the following knowledge and skills: <ul style="list-style-type: none"> <li>- Have a knowledge of the core disciplines of public health</li> <li>- Have a broad knowledge of health delivery systems</li> <li>- Synthesize health data</li> <li>- Develop managerial skills</li> <li>- Plan, implement and evaluate health programmes.</li> <li>- Develop research skills</li> <li>- Have a broad understanding of the concept of public health</li> <li>- Demonstrate ability to apply knowledge of the core disciplines and concepts of public health</li> <li>- Understand the appropriate use of population wide versus targeted health interventions</li> <li>- Apply the knowledge and analytical skills gained, to inform health interventions from programme planning, implementation and evaluation.</li> <li>- Have the capacity to develop appropriate advocacy instruments that use evidence to help influence policy and practice among policy actors and programme managers, and public awareness and opinion on health-related issues</li> </ul>
<b>Job Prospects of graduates</b>	Employment opportunities abound for graduates of the MPH programme as managers and implementers of public health-related health programmes in the Local Government health departments, State and Federal Ministries of Health. They can also be employed as public health experts and consultants within local and international agencies and non-governmental organizations.
<b>Further study</b>	The programme offers an excellent preparation for students who successfully complete it and who may wish to go on to take a higher degree, such as a DrPH. Areas of specialisation include Epidemiology, Medical Statistics, Occupational Health, Environmental Health, Primary Health Care, Health education, Family Health, Social Medicine and Health system administration & management.

## STRESS AREAS

## STRESS NO

Foundational Courses	0
Epidemiology	1
Biostatistics & population studies	2
Health Care studies	3
General Preventive & Health Communication Studies	4
Primary Health Care and Nutrition Studies	5
Research work	9

## PROGRAMME STRUCTURE

### 1. Core Courses

#### *First Semester*

<b>Course No.</b>	<b>Title</b>	<b>Units</b>
PGC 601	Research Methodology in Medical and Environmental Sciences	3
PUH 711	Basic Epidemiology I	2
PUH 721	Basic Medical Statistics	2
PUH 723	Demography	2
PUH 731	Health Planning and Management	2
PUH 733	Social Medicine	2
PUH 735	Introduction to Environmental Health and safety	2
PUH 741	Communication and Health	2
PUH 751	Primary Health Care	2
	Sub-total	19

#### *Second Semester*

<b>Course No.</b>	<b>Title</b>	<b>Units</b>
PUH 702	Seminar	2
PUH 712	Epidemiology of Infectious and Non-infectious diseases II	2
PUH 732	Maternal and Child Health	2
PUH 734	Health Education	2
PUH 736	Introduction to Occupational Health and Safety	2
PUH 738	Basic Medical Microbiology	2
PUH 742	General Preventive Medicine	2
PUH 752	Nutrition and Health	2
PUH 790	Project	6
	Sub-total	24

## COURSE DESCRIPTION

Course No.	Title	Description
PGC 601	<b>Research Methodology and Application of ICT in Research</b>	This is in-depth research work aimed at acquiring full knowledge and presentation in scholarly writing of the concepts, issues, trends in the definition and development of the study of the study area from African and Western perspectives; Major steps in research: Selection of problem, Literature review, Design, Data collection, analysis and interpretation, Conclusions, Study of various research designs, Historical, Case Studies, Surveys, Descriptive, Cross sectional, Experimental, as well as Analysis, surveys and synthesis of conceptual and philosophical foundations of different disciplines. Identification of research problems and development of research questions and or hypotheses are discussed. Detailed treatment of methods of collecting relevant research data and the format for presenting research results (from designing the table of contents to referencing, bibliography and appendix) are also part of this course; Data analysis and result presentation in different disciplines using appropriate analytical tools, Methods of project dissertation writing. This course also considers the Application of appropriate advanced ICT tools relevant in various disciplines for data gathering, analysis and result presentation; Essentials of Spreadsheets, internet technology and internet search engines.
PUH 702	<b>Seminar</b>	This course involves the critical review of literature topics of importance to Public Health. During these seminars, students will learn how to critically appraise published literature. Each student will critically appraise literature in the field, make an oral presentation of the appraisal, and submit a report of the appraisal. The presentation will last for 30 minutes while the paper should be a maximum of 4000-5000 words, written under the following headings; Introduction, Methods, Literature Review, Discussion and Conclusion, Recommendation and References. Assessment of written work carries 70% while the oral presentation carries 30%.
PUH 711	<b>Basic Epidemiology</b>	This course is designed to teach basic principles of epidemiologic research design. The course provides an overview of the types of research questions that can be addressed by epidemiologic methods. Topics covered include: definitions of epidemiology; measures of disease frequency; measures of association and impact; epidemiologic study designs, both experimental and non-experimental; and an overview of analysis of epidemiologic studies.
PUH 712	<b>Epidemiology of Infectious and Non-infectious diseases II</b>	The first component of the course (epidemiology of infectious diseases) will cover the following: Definitions; principles of the transmission of the infectious agents of public health importance (viruses, bacteria, rickettsia, mycoplasma, fungi, and protozoan and helminth parasites); the role of vectors, reservoirs, and environmental factors; pathogen and host characteristics that determine the spectrum of infection and disease; endemicity and outbreaks of selected infectious diseases; principles of disease control and surveillance.  The second component of the course (epidemiology of non-infectious diseases) will cover the following: descriptive epidemiology and sources of incidence and

		mortality data; biological bases of non-communicable diseases such as hypertension, heart disease, diabetes, obesity, renal disease, cancer and mental illness; methodological issues relevant to non-communicable disease research; causal inference; major environmental risk factors; genetic susceptibility; and examples of current research and critiques of literature
<b>PUH 721</b>	<b>Basic Medical Statistics</b>	This course provides a detailed introduction to the theory and application of statistical techniques that commonly are used in medical research. Topics include data types, measures of central tendency, measures of variability, probability distributions, significance testing, confidence intervals, sample size calculation and power, measures of association, chi-square tests, t-tests, non-parametric analyses, analysis of variance and the basics of linear regression. The SPSS statistical program will be taught during classes and used to carry out analyses.
<b>PUH 723</b>	<b>Demography</b>	Meaning and nature of demography, types, sources and uses of demographic data, demographic data survey and census, population structure and dynamics, trends and health effects, demography data presentation and rates, population growth and estimates, standardisation and adjustment of rates, life table and survival analysis and application.
<b>PUH 731</b>	<b>Health Planning and Management</b>	Definition and the concept of Management. Examination of various management theories and principles. Planning; introduction to some analytic and non-analytic health planning techniques. Health Programme Planning and Implementation. The Concept of Management and decision techniques, the changing nature of administration and management and the place of modern techniques in management. Types of organizational functions, setting of organizational objectives and goals, effective organization-authority, power and delegation, formal and informal organizational structure and design, management techniques, line and staff function and authority. Organizational development and change. Management techniques in practice; Quantitative techniques, Organization and Methods (Q & M), Management by objectives (MBO), Project Management (PM), Project Evaluation and Review Techniques (PERT), Decision making techniques, Managing Services and Queuing theory, Inventory Management problems, Dynamic programming etc. and their relevance to health care delivery. Quality Assurance principles, Overview of monitoring and evaluation, evaluation methods, PHC implementation and evaluation, Community diagnosis.
<b>PUH 732</b>	<b>Maternal and Child Health</b>	Maternal and child health services; objectives, components & organisation, Family planning & methods, Compulsory immunization programmes, Child survival strategies, School health services, Care of the handicapped and aged, Current issues in women & children's health in developing countries, Sexual health/control of reproductive tract diseases and sexually transmitted infections, Maternal and Child Health Policies, Evaluation of family health programmes.
<b>PUH 734</b>	<b>Health Education</b>	Definitions, concepts, principles and objectives of health education, Education theories and the learning process, Identification of learning needs, Education and training methodology including the IEC training scheme & curriculum development, Planning of health education for individuals, groups and

		communities, Levels of health education.
<b>PUH 733</b>	<b>Social Medicine</b>	History and health; Concepts of culture; society; social stratification and health outcomes; Medical anthropology in public health; Sociological approaches to health; Theories of diseases causation & effect on perception of health and illness; Illness behaviour and legitimization; Modern and traditional health systems and factors affecting their utilisation; The concept of Social Determinants of Health; Social and psychological aspects of health in work place environments; Social welfare services in Nigeria and other countries.
<b>PUH 736</b>	<b>Introduction to Occupational Health and Safety</b>	Organisation and functions of Occupational health; The work environment(Physical, Chemical, Biological, Mechanical and Social); Principles of control/prevention of occupational diseases and hazards; Regulation and control of Occupational health problems; Occupational legislation, factory laws, labour laws; Steps to occupational risk assessment; occupational risk management goals; occupational risk management process; risk assessment toolkit; Application of concept of epidemiology, epidemics and management of epidemic in the workplace
<b>PUH 735</b>	<b>Introduction to Environmental Health and Safety</b>	Students will be taught the following: Definition and classification of environment; Definition and classification of Environmental hazards; relationship between health and environment; Preventive environmental health measures; General introduction to the following topics: Provision of safe and adequate water supply; Proper and safe disposal of sewage (excreta disposal); Proper disposal of solid waste (refuse disposal); Safeguarding of food supplies, to ensure that they are safe (food hygiene); Provision of good housing (with as few opportunities as possible for direct transmission of disease); Control of disease vectors and pests; Control of atmospheric pollution (to ensure that the external atmosphere is free from deleterious elements and that the internal condition of workshops, houses, etc. is suitable for the occupants); Elimination of other hazards e.g. radiations, noise, and temperature.
<b>PUH 738</b>	<b>Basic Medical Microbiology</b>	Classification of micro-organisms, Host-parasite relationship, practical use of microscopes in the identification of micro-organisms, factors affecting disease transmission, aspects of parasitology, bacteriology, mycology and virology.
<b>PUH 741</b>	<b>Communication and Health</b>	Communication theories, principles and process, Role and use of communication and media in the promotion of health care, Strategies of mass communication, organisational and inter-personal communication, Application of communication processes to health care issues.
<b>PUH 742</b>	<b>General Preventive Medicine</b>	Problems, needs assessment and organisation of a public health dental programme, causes, occurrence, identification and control of common mental disorders through a community mental programme, management of drugs and rational drug use
<b>PUH 751</b>	<b>Primary Health Care</b>	The basic health services Scheme (BHSS), The Alma Ata Declaration, Principles & Components of Primary Health Care (PHC), Old and New PHC Implementation & Organizational Structure in Nigeria, PHC Planning and Management , Community diagnosis and Mobilization for Action, PHC related Global Health Programmes, Bamako initiative, Monitoring and Evaluation of PHC activities, Developing PHC

		programmes, Functions of a Medical Officer of Health.
<b>PUH 752</b>	<b>Nutrition and Health</b>	Basic nutritional requirements & metabolism, Nutritional problems of public health significance in Nigeria, Nutrition related chronic diseases, Dietary guidelines for common diet related diseases, Quantification and assessment of dietary intake and nutritional status, Organisation of community based nutritional programme, National food & nutrition policy, Current topics in nutritional epidemiology, Maternal and child health nutrition, Developing a Nutrition programme for a target group.
<b>PUH 790</b>	<b>Project</b>	Every Student is expected to undertake a research and produce a project report, which must meet an acceptable standard on a topic chosen from the field of Public Health. The report should demonstrate an application of knowledge and skill in research methods learned during the course. Each student shall be assigned a Supervisor from the academic staff of the Department or any other academic staff of the University. The project work shall be based on an empirical study of a real life problem or situation as agreed by the Department. Written report should be up to 14,000 words using a recommended layout. Assessment is by grading of the project report by an external and internal examiner. The expected layout of the research schedule and duration are as follows: Project design and protocol development module (2 <sup>nd</sup> semester of 1 <sup>st</sup> year), Field work, data analysis and report writing (2 <sup>nd</sup> year for full time students and 2 <sup>nd</sup> and 3 <sup>rd</sup> year for part-time students).

## COMPULSORY ACTIVITIES

### Practical Parasitology and Entomology

Acquisition of skills in the practical identification of agents and vectors of endemic diseases of public health importance e.g. yellow fever, typhus fevers, tuberculosis, plague, sexually transmitted diseases, malaria, filariasis, onchocerciasis, schistosomiasis, trypanosomiasis, dracontiasis, scabies, etc.

### Use of Computers

Practical acquisition of skills in the use of statistical packages and other computer software relevant to public health learning and practice.

### Field Visits

The MPH programme includes a compulsory field trip to places of public health importance. Each trip is scheduled for one day per week and lasts five hours. Recommended places for visits are:

- Environmental Health Services including municipal water works, refuse & sewage disposal sites, food processing factories, abattoirs, etc.
- Community welfare services including homes for the aged, motherless babies and handicapped children, prisons, remand homes, etc.
- Occupational health services in selected industries
- Public health training schools

- Public Health Departments involved in disease control activities and other important health programs e.g. tuberculosis, malaria etc.
- Public Health Laboratories
- Local Government's Medical Officer of Health office
- Important Non-Governmental Organizations
- International Air and Sea ports

### Examination

A minimum of 75% attendance of all registered courses and compulsory activities is required before a student is allowed to participate in examinations. Taught courses will be examined at the end of the semester in which they were registered, while assessment of the Project Report will be at the end of the 2<sup>nd</sup> Year for full time students and 3<sup>rd</sup> year for part-time students. Lecturers also set periodic assessment tests. Students that fail to meet attendance requirements and those that fail to attend an examination or seminar presentation without an official permission by the departmental postgraduate board shall be considered have failed the exam and will be due to repeat the examination, if they are still within the officially allotted time. The minimum pass score for each course is 50%. Any student who fails a course shall repeat such a course and can only have a maximum score of 50% for repeated courses.

### AWARDING THE MPH DEGREE

Any student whose CGPA falls below 2.50 in any semester shall withdraw from the programme. Students must complete and defend their projects within their stipulated maximum period of stay, or they will be considered to have abandoned the programme.