

MASTER OF PUBLIC HEALTH

Department of Social and Preventive Medicine
Faculty of Medicine
University of Malaya
Kuala Lumpur

1992

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1. HISTORY

In March 1973, ten years after the establishment of the University of Malaya Medical Centre (consisting of the Faculty of Medicine and the University Hospital), a decision was made by the Cabinet to start post-graduate courses in the Faculty of Medicine. One of the courses proposed was in field of Public Health.

By September 1973, a post-graduate programme leading to the degree of Master of Public Health (MPH) was inaugurated and the first class (1973/74) started with seven doctors.

Up to August 1991, 18 classes of doctors have undergone training in the MPH programme and a total of 174 students have graduated with the degree of Master of Public Health.

2. MISSION AND OBJECTIVES

Mission: to produce public health specialists appropriate for the needs of Malaysia.
(However, the course is also suitable for doctors in other countries with health problems similar to Malaysia's).

Objectives:

1. To equip the student with technical competence in the field of Public Health, and
2. To equip the student with management and leadership skills.

3. ELIGIBILITY FOR ENROLMENT

1. For admission as a candidate for the degree of Master of Public Health, the candidate must:-
 - (a) have the degrees of Bachelor of Medicine and Bachelor of Surgery of the University of Malaya or equivalent qualifications approved by the Senate;
 - (b) have at least one year of general medical experience after full registration.
2.
 - (a) Applicants residing in Malaysia are required to fulfil an Entrance Evaluation conducted by the Faculty of Medicine, University of Malaya.
 - (b) Applicants residing outside Malaysia and Singapore may be evaluated for entry into the course based on qualification, experience, transcripts, confidential reports, etc.
3. All admissions are subject to approval by the University of Malaya Senate.

4. APPLICATIONS

Malaysian applicants who are serving in the Government Health Services may apply via their respective Heads of Departments when the MPH programme is advertised. Other Malaysian applicants and foreign (Non-Malaysian) applicants may apply direct to

The Registrar,
University of Malaya,
Pantai Valley,
59100 Kuala Lumpur, MALAYSIA.

Enquiries for more information regarding the MPH programme may be directed to the:

Head,
Department of Social and
Preventive Medicine,
Faculty of Medicine,
University of Malaya,
59100 Kuala Lumpur, MALAYSIA.

Tel: 03 750 2067

FAX: 603 756 8841

5. PROGRAMME SCHEDULE

The MPH programme is a 12-month course which commences in January. An orientation programme will be conducted one week prior to the commencement of the MPH course. Successful applicants will be notified regarding the exact dates of these programmes.

6. CURRICULUM

All courses in the MPH curriculum are compulsory.

6.1 Courses

The courses in the Master of Public Health (MPH) programme are grouped into 7 blocks of studies.

The following are the blocks of studies and the courses:

- | | |
|-----------------|---|
| 1 Biostatistics | - Statistical Methods |
| 2 Epidemiology | - Principles of Epidemiology |
| | - Health Statistics |
| | - Epidemiology of Communicable Diseases |
| | - Epidemiology of Non-communicable Diseases |
| 3 Management | - Management 1 (Concepts) |
| | - Management 2 (Process) |
| | - Management 3 (Applications) |

- | | |
|-------------------------------------|---|
| 4 Research Methods | - Computer Applications in Public Health
- Community Research Methods |
| 5 Social Science & Health Education | - Medical Socio-anthropology
- Education and Communications in Public Health |
| 6 Environmental Health | - Environmental Sanitation
- Occupational Health |
| 7 Family Health | - Maternal and Child Health
- Population and Ecology
- Public Health Nutrition
- Primary Health Care |

(Further details of these courses are given in the Annex on Brief Description of Courses.)

6.2 Field work

The MPH programme requires that a candidate is given "supervised practical field experience". This programme is fulfilled through a number of field studies which consists of the following:-

- a. As part of various courses, visits are arranged to observe institutions, plants and the work of a

number of local health and health-related agencies.

- b. Visits to institutions and plants in the Republic of Singapore. An optional field study period can be made available for candidates to widen their knowledge with a visit to an ASEAN country.
- c. Candidates are required to stay in a rural health district with the general objectives:
 - to develop and strengthen his leadership qualities to be a trainer and a supervisor, and
 - to examine critically the management processes as practised in the district health services.

6.3 Dissertation

The MPH programme requires that a candidate submits a dissertation before he is able to satisfactorily complete the programme.

The dissertation is considered primarily as an educational tool wherein the candidate can demonstrate his ability to:

- define a public health or health-related problem,
- read and review literature concerning the defined problem,
- choose appropriate methods for investigating the problem,
- present his findings and conclusions

- scientifically and clearly, and where appropriate, make recommendations for the solution of the problem.

A period of time is allocated during the programme for the candidate to collect data for his dissertation.

6.4 Teaching methods

The MPH programme employs a mix of teaching methods. Traditional didactic methods and problem-solving instructional sessions are used. There is also an increasing use of the "case method" where candidates are required to participate in presenting their opinions and possible solutions to simulated or real problems posed. Role-playing is also used as a method to debate solutions to problems.

Practical sessions are also conducted for areas like microcomputer use, epidemiology and biostatistics.

6.5. Evaluation

The following components are included in the final evaluation of the student to qualify for the degree of Master of Public Health:-

1. Coursework performance based on assignments or tests
2. Performance in the dissertation
3. An examination conducted upon completion of all courses in the MPH

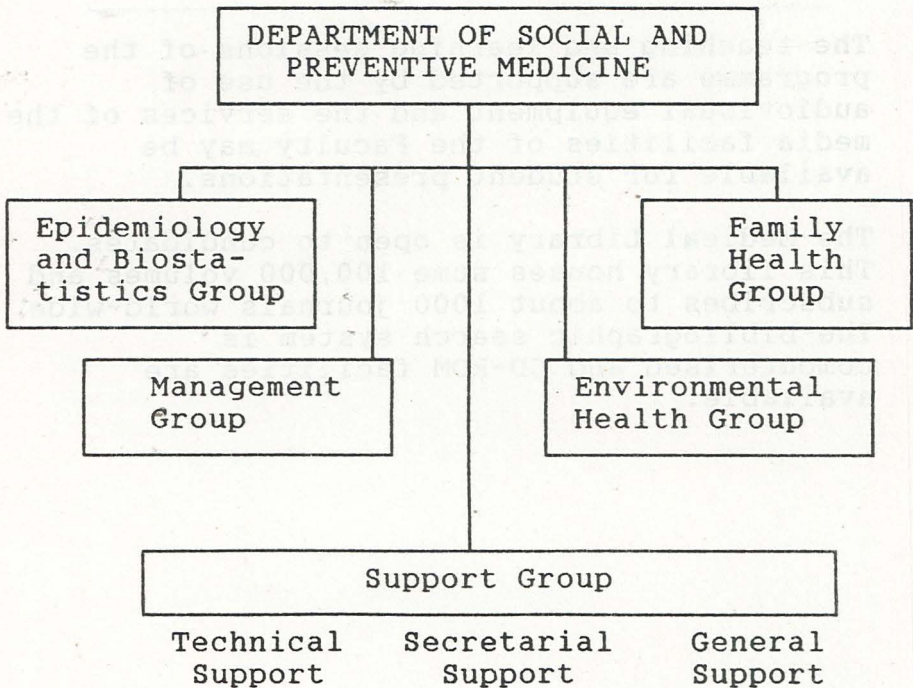
programme. This examination has two components:

- a) a written examination comprising four papers
 - Paper 1 (multiple choice questions)
 - Paper 2 (short answer-type questions)
 - Paper 3 (essays)
 - Paper 4 (problem-solving questions)
- b) an oral (viva voce) examination.

7. DEPARTMENT OF SOCIAL AND PREVENTIVE MEDICINE

Organisation

The Department of Social and Preventive Medicine is functionally organised in the following manner to carry out its instructional mission:



Facilities

The MPH programme is conducted in facilities which consist of two class/seminar rooms as well as a study room. The study room has individual carrels which are allocated to candidates for use as a "home base" for the duration of the programme.

The Department maintains a microcomputer facility which is used for teaching as well as for use by the candidates during the programme.

A small Departmental transport pool may provide transport for some of the field study visits during the programme.

The teaching and learning sessions of the programme are supported by the use of audiovisual equipment and the services of the media facilities of the Faculty may be available for student presentations.

The Medical Library is open to candidates. This library houses some 100,000 volumes and subscribes to about 1000 journals world-wide. The bibliographic search system is computerised and CD-ROM facilities are available.

ANNEX

BRIEF DESCRIPTIONS OF COURSES IN THE MASTER OF PUBLIC HEALTH PROGRAMME

All courses are conducted in English. The length of each course varies from year to year depending on the current emphasis and developments in the subject concerned. Length (hours) given are thus approximate.

1. Block : BIOSTATISTICS

Course: Statistical Methodology (STATS)
25 hours

This course covers both theoretical and practical aspects and aims to acquaint the student with the more important statistical methods employed in the health sciences. Topics covered include:

Population, samples,
and sampling
Variables and scales of
measurement
Presentation of
Statistical Information
Descriptive Statistics
indices
Probability concepts and
Probability distributions
Estimation of Parameters
Hypothesis Testing
Correlation and Regression

2. Block : EPIDEMIOLOGY

Course: Principles of Epidemiology
(EPID1) 32 hours

This course provides the student with principles and methods of epidemiology for eventual use in public health practice. Topics covered include:

Epidemiological orientation to health and disease
Epidemiological concepts
Organising data and presenting information
Principles of prevention and control
Management of epidemics
Principles of screening
Principles of surveillance
Epidemiological study designs

Course: Health Statistics (HSTAT)
14 hours

This course provides basic knowledge on the collection, use and limitations of health

statistics. Topics covered include:

- Health statistics
 - collection systems
- Population Statistics
- Vital Statistics
- Life and survivorship tables
- Mortality statistics
- Morbidity statistics
- Standardised death rates

Course: Epidemiology of Communicable Diseases (EPID2) 80 hours

(incorporating Microbiological and Parasitological Aspects)

The epidemiological aspects of important communicable diseases of public health importance in Malaysia are discussed. The appropriate measures to control and prevent these diseases are also discussed. Topics include:

- Intestinal tissue protozoa
- Helminths
- Vector-borne diseases
 - Malaria
 - Dengue/DHF
 - Other arthropod-borne diseases
- Enteric diseases
 - Acute diarrhoeal diseases
 - Cholera
 - Typhoid
 - Polio

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Airborne diseases

Tuberculosis

Diphtheria

Rubella

Measles

Food-borne diseases

Viral hepatitis

Contact infections

STDs (AIDS and other
STDs)

Leprosy

International health

Nosocomial infections

Course: Epidemiology of Non-Communicable Diseases (EPID3)
10 hours

The epidemiology, risk factors and prevention of non-communicable diseases are discussed in this course. The disease problems selected may change from time to time.

Epidemiology of Non-Communicable Diseases
Coronary Heart Disease
Cancers
Diabetes mellitus

3. Block : Management

Course: Concepts of Management (MGMT1)
10 hours

This course explores the wider aspects of management and allows the student to be exposed to the various concepts of management in general before getting into the actual process of management. Topics discussed include:

- Philosophy and concepts of health care systems
- Introduction to general concepts of Management
- Ethical and environmental considerations
- Health care systems

Course: Process of Management (MGMT2)
70 hours

This course considers the various functions of a general manager and the processes involved in the conduct of management. Examples and case studies from health care management are also discussed.

Topics include:

- Systems view and problem-solving
- Planning and decision making
- Organising and organisations
- Leadership, motivation and organisational communication
- Health economics and financial planning
- Controlling and evaluation
- Planning for change
- Team building and teamwork
- The legal framework of management
- The Malaysian legal system

**Course: Applications of Management
(MGMT3) 15 hours**

This course will allow opportunities for the student to consider a number of management problem situations and debate their possible solutions. It will be supplemented with sessions considering certain environments in which the student is expected to practice upon completion of the program.

Topics include:

- The hospital environment
- The primary health care (PHC) environment and the

health for all programmes
(HFA2000)

Application case studies

4. Block : Research Methods

Course: Computer Applications in Public Health (CAPH) 31 hours

The conceptual basis for this course is that for a public health manager to practise successfully, he needs adequate, relevant and timely information. However, he needs first to collect data in order that these may be processed into the required information. A knowledge of microcomputers and their use is now deemed to be necessary for data processing. Knowledge and skills acquired in this course will be applicable to all areas of the practice of public health. Topics include:

- Data and information
- Information systems
- Computers
- Programs and programming
- Microcomputer systems
- Applications software
- Practical application of microcomputers:
 - Word processing
 - Database operations
 - Computer graphics

- Spreadsheet demonstrations
- Statistical operations
- Integrated software (Epi-info)

**Course: Community Research Methods
(COMRM) 32 hours**

The aim of this course is to provide the student with a "set" of research tools and techniques applicable to the conduct of community and health systems research projects. Common pitfalls are pointed out. This course also provides the student with a base from which to plan and conduct his study for his dissertation.

Defining the problem
Research Designs
Population, samples and sampling
Variables and scales of measurement
Data collection
Data analysis and processing
Report writing

5. Block : Social Sciences in Public Health and Health Education

Course: Medical Socio-anthropology
(MSOC) 18 hours

The aim of this course is to provide the student with an understanding of the various sociological and anthropological theories and practices relevant to public health and community medicine. These are illustrated with situations in the health care field. Topics include:

- Culture
- Socialization
- Social groups
- Family
- Social class
- Social control and social deviation
- Social change
- Healers and medical systems
- Family health & cultural practices

**Course: Education and Communications
in Public Health (ECPH)
30 hours**

The aim of this course is to provide the student with a model and framework so that he could plan, design, execute and evaluate formal training and community health education programmes. Topics include:

- Systems approach
- Assessment of needs
- Educational objectives
- Educational evaluation
- Content analysis
- Instructional methods
- Instructional media
- Session plans
- Diffusion of innovations
- Communication channels
- Organising for health education

6. Block : Environmental Health

**Course: Environmental Sanitation
(EVSAN) 50 hours**

This course aims at providing the students with an understanding of environmental health problems related to the atmosphere, water, food and soil. The students are also briefed on the programmes of various governmental agencies involved. Field visits supplement in-house instruction. Topics covered include:

- Water supply
- Waste disposal (solid and liquid)
- Public health aspects of housing
- Building plans vetting
- Food quality control
- Rodent and pest control
- Environmental pollution
- Public health aspects of disasters
- Related legislation

Course: Occupational Health (OCHLT)
36 hours

The aim in this course is to provide the student with a basic understanding of the physical, chemical and biological factors in relation to the work environment so that he may adequately handle occupational health problems in his future practice in concert with other relevant agencies.

Topics include:

- Physical, chemical and biological hazards
- Industrial hygiene
- Prevention of occupational diseases and accidents
- Radiation protection
- Occupational health legislation
- Programmes of Factory and Machinery Department
- Role of Social Security Organisation
- Occupational health problems and practices in Malaysia

7. Block : Family Health

Course: Maternal and Child Health (MCH)
30 hours

The focus of this course is on disease patterns affecting vulnerable groups in the community. These groups would include mothers and children. Programmes preventing and controlling illnesses in these groups are also discussed. Topics include:

- Health status of mothers and children in developing and developed countries
- Health problems in mothers and children
- Assessment of growth and development
- The problems of the schoolchild and adolescent
- Health policies, strategies & programmes for families
- Health care services of mothers and children
- Immunisation
- Prevention of childhood accidents

Preventive obstetrics
Welfare services for
mothers and children
Care of the disabled
Recent developments in
MCH services
Perinatal Mortality

Course: Population and Ecology (POPEC)
21 hours

The course begins with basic principles of human ecology, emphasis being placed on the place of man in the ecosystem and the manner in which he has contributed to its alteration with the attendant public health implications. The role of various agencies in the promotion of family development and welfare is also discussed. Topics covered include:

Environment and ecology
management
Environmental public
health and human ecology
Principles of demography
Population dynamics
National population
policy and programme
Integration of family
programme
Role of Family Planning
Association in family
health and welfare
Contraceptive Technology
Religion and family
planning

Course: Public Health Nutrition (PHNTR)
6 hours

This course assumes a general knowledge of human nutrition at the medical undergraduate level. The student is exposed to nutrition at the community level (as different from the patient-care level). Topics include:

Overview of public health
nutrition
Nutritional assessment
Community nutrition
programmes

Course: Primary Health Care (PHC)
4 hours

This course considers the various aspects of the philosophy, concepts, programs and organisation for the delivery of primary health care to the community.

Concepts of primary health
care
Primary health care
programme