

# **GUIDELINES FOR COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMME FOR MD IN HEALTH ADMINISTRATION**

## **Preamble:**

The purpose of this Degree course is to standardize Health Administration teaching at Post Graduate level throughout the country so that it will benefit in achieving uniformity in postgraduate teaching by covering all important aspects of health management which is required to implement an effective and efficient health care delivery system as well and creating competent Health Administrators with appropriate expertise.

This document provides teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment. This document was prepared by inputs from various subject-content specialists. The Reconciliation Board of the Academic Committee has attempted to render uniformity without compromise to purpose and content of the document. Compromise in purity of syntax has been made in order to preserve the purpose and content. This has necessitated retention of “domains of learning” under the heading “competencies”.

## ***SUBJECT SPECIFIC LEARNING OBJECTIVES***

The **goal** of MD course in Health Administration is to produce competent Health Administrators who can:

1. Understand various management concepts, functions, principles and techniques and their application in health care delivery system.
2. Demonstrate and apply the basic concepts of Social Sciences that includes Human behavior and Organisational Development.
3. Apply basic principles and Concepts of Epidemiology related to Health Administration.
4. Describe planning and management hospital of services and role of hospitals in Health Care.
5. Describe the organizational and functional aspects of health organization at different levels and its functions and relationship with community health problems.
6. Understand the objectives and issues related to various National Health and Family Welfare programmes and apply appropriate strategies for its implementation.
7. Apply the knowledge and skills of Research Methodology to conduct various scientific studies required in health administration.

8. Apply the managerial skills required for day-to-day execution to achieve the objectives and problem solving during the implementation of various National Health and Family Welfare programmes.
9. Implement various Public Health Laws and understand the Ethical and Medico-legal aspects in respect of Health Administration.
10. Effectively analyse and maintain information and reports and translate the same for effective health management information system and apply Biostatistics techniques to achieve desired results.
11. Demonstrate the skills of effective communication with family and the community.
12. Apply the contemporary advances and developments in medical sciences as related to Health Administration.
13. Demonstrate the skills of educating and training medical and paramedical professionals in various aspects of Health Administration.

## ***SUBJECT SPECIFIC COMPETENCIES***

### **A. Cognitive domain**

**At the end of the course, the student should have acquired following theoretical competencies:**

- Knowledge of Social and behavioral sciences
- Effective communication capabilities
- Factors influencing demand for basic health services and economic aspects of health and disease
- Applied aspects of results of population and organisation of health in community
- Knowledge of National health policy
- Knowledge of National Population Policy
- Knowledge of Health manpower planning- concepts, methods and planning cycle
- Knowledge of National Health Programmes, like MCH, NRHM, their objectives, operations, achievements and constraints
- Knowledge of Public Administration and Health Management
- Knowledge of principles of economics as applied to health & disease
- Economics of health planning
- Knowledge of Epidemiology, Research Methodology, Biostatistics and Statistical methods and Demography
- Knowledge of Epidemiology: Definition, concepts and principles and uses of epidemiology
- Epidemiological skills and knowledge essential for the community health administrators

- Knowledge of Community Health Administration including Health Programmes and Public Health Laws
- Knowledge of Medical Care and Hospital Administration

**B. Affective domain:**

**The student:**

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
2. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.
3. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

**C. Psychomotor domain: (The student should acquire the following practical competencies)**

**Practical Training:**

Supervised field visits to gain experience in state, district and primary health centre administration. A supervised field study of programme management (direction, coordination, supervision and evaluation) activities in administration at all level experience in selected health agencies - management of a district hospital; visits to various hospitals and attachment to different areas in the hospital with dissertation writing in some selected area.

Urban health agencies – management of a body; problems in administration of a graduate teaching institution and its attached hospital study of administration of training institutions for para-medical and auxiliary health workers; study of organisation and administration of district laboratory etc.

The practical training will be imparted to the students by way of case studies and problem solving so as to give training in the decision making process. Visits to various Health Institutions and Hospitals and attachment to different areas dealing with health administration followed by presentation. Dissertation writing in some selected area.

***Syllabus***

**Course contents:**

## **Paper I: Basic concepts in Community Medicine, Social Medicine and Management Sciences**

### **Social Science and behavioral science**

- Sociology, Social Psychology and Social Anthropology
- Social aspects of health and population
- Theories of motivation and their implications in health
- Attitudes and values
- Socio cultural factors affecting health status
- Social change, Social marketing, Social stratification
- PLA Family, social structure and its role in health
- Groups' dynamics
- Health behavior models: their relevance in Indian context.

### **Communication**

- Principles, purpose and methodology of communication
- Fundamentals of communication process
- Models of communication
- Barriers of effective communication
- Organisation of communication
- Communication for health and development
- Communication for behavior change
- IEC: Concepts and strategies
- Social mobilization: meanings and methods
- Community needs assessment in a community

### **Economics of health and disease**

- Introduction
- Definitions
- Factors influencing demand for basic health services and applied aspects of results of population and organisation of health in community
- Manpower sources
- The health and industry
- Budget and fiscal policy
- Planning economic aspects
- National Income and its measurement
- International assistance in health development
- Theories of economic growth



## **Public Administration**

- Definitions of basic terms
- Relation of public administration to other disciplines
- Framework of public Administration etc.

## **Health Administration**

- Health Policy in planning project formulation organization for project implementation
- National Health Policy
- National Population Policy
- Principles and concepts in health planning
- Planning cycle and various steps in planning
- Planning of health services in India
- Health manpower planning- concepts, methods and planning cycle
- Organisation and functioning of health services at central, state, district block and village levels health services and urban health services
- Comprehensive health care and new development concepts of integration and administrative problems in Health Services Organisation
- Organisation of school health services
- Organisation and management of MCH and family welfare services in rural and urban areas
- Regionalisation and decentralization of health care and Referral Services
- National Health Programmes, their objectives, operations, achievements and constraints
- Monitoring and Evaluation in Health Services
- Public health laws at centre, state and local laws related to various areas like Registration of Vital events, food adulteration, Drug and Industrial health and municipal health
- Objectives and role of health education, methods and materials of health education, planning and evaluation of health education programme.

## **Public Administration and Health Management**

- Introduction to Public Administration
- Constitutional and legal framework of Public Administration in India
- Constitutional provisions related to Public Health: Health functions at Central and State levels of Government
- Legislative Control of Public Administration
- Delegated Legislation
- Administrative Tribunals

- Municipal Government in India
- Rural Local Government - Panchayati Raj Administration
- Centre-State Relationships - Sarkaria Commission
- Styles of Management - Participative management, Management by objective, Managerial grid, etc.
- Personnel Management in India - Recruitment policies, Position classification, Training of civil servants in India, Employer - Employee relations
- Disciplinary proceedings of civil servants in India
- Financial Administration - Types of budgets, Audits, Delegation of Financial Powers
- Planning process and Machinery in India
- Modern Management Techniques- Work Study, Ergonomics, Operations Research, PERT/CPM, Cybernetics, PPBS, Discounted cash flow
- Materials Management - Materials Planning, Demand Estimation, Procurement Procedures, Inventory control, Reorder Level, Buffer Stock, EOQ, Condemnation procedures etc.

#### **Relation of public administration in other disciplines**

- Political Science, economics, psychology, sociology, etc. How all these relate to health administration of health?

#### **Principles of Organisation**

- Line and staff, basis of organisation, functionalise centralization and decentralisation, organization and science and management as an art:
- organization as a science, business and industry,
- education and agriculture and applicability of these to health.

#### **Theories of Management**

- Theories of Management as related to organization and the overall system of administration, processes involved in management and the theoretical concepts in relation to the practice of health administration;
- education of the managerial physician, gaps between manual and practice.

#### **Organizational Behavior**

- The organization as a system; the hospital and the medical and other health professions as organizations
- Importance of the term in the organization
- Leadership behaviour and organization communication
- Growth of organizations

- Goal setting and institution building. Developing organizations as self renewing systems.

### **Role as the Focus of Organization Behaviour**

- Study of various roles in the health organization, role expectations, role ambiguity and role conflict & inter-role relations.
- Coping mechanisms in role.
- Conflict situations, especially in the health bureaucracy and the hospital
- Helping role of the physician and the administrator.

### **Community Diagnosis and Community Involvement**

- Social etiology and medical ecology of health problems in community;
- Leadership and patterns of personal influence.
- Intra-community communication,
- Community decision making;
- Changing patterns of community leadership;
- Community development, characteristics of rural and urban communities in India.
- Problems of industrial communities for health administration.

### **Dynamics of Change**

- The process of change in the Indian society.
- The cultural factors promoting and retarding change.
- Health administrators as a change agent.
- Methods of promoting change.
- Administering a changing organization.

### **Ways of changing individual and community behavior for better health**

- Working with felt needs of the community
- Force field model
- The use of educational technology in health education, specially the role of audio-visual aids & social work.

### **Ways of improving the working of organisation**

- Diagnosing problems in micro-cosmic and larger systems
- Skills of working effectively with individuals and groups,
- Effective staff management.
- Training as a consulting process; improving the organization through improving the persons working in the organization on specific jobs.

Training of health workers at various levels, including auxiliary workers.  
Administering training.

- The effective use of conferences, committees and informal groups in the organization.

### **Studying the Health Organization**

- The role evaluation and research in administrative actions
- Feedback process in self renewing system of health organization
- Instrumentation for administrative research: preparation of tools for data collection, the traditional survey tools, projective technique, scaling of behaviour tools for data analysis,
- Use of non-parametric methods in quick administration decision making.
- Multivariate and multi-disciplinary research of administration field work.

### **Problems in Human Relations**

- Problems of motivation - employer-employee relationship rights and duties
- Role of management in supervision
- Communication between various levels problems

### **Supervision**

- The main aspects of supervision, importance, functions, skills, discipline, self improvement.

### **Economics of Health and Disease**

- The principles of economics as applied to health with a view to bringing out the distinctive economic characteristics of the health and medical care industry.
- The analytical methods, view points, techniques and tools of economics brought to bear on the field of health.

### **Budget and Fiscal Policy**

- Budgeting in relation to health.
- Health expenditure in relation to total budget expenditure

### **Economic Aspects of Planning**

- Resource procurement, Selection of techniques.
- Criteria to delimit in local planning.



## **Theories of Economic Growth**

- Stages of economic growth and the role of health,
- Health and its relation to the general economy.
- Cost of living and other indexes.

## **Health Management Information Systems**

- Collection, Collation, analysis and operation of the data to transform into meaningful information which could be used to take various policy decision and problem solving in Health Administration.

## **Quality Management in Health Administration**

- Definition of a quality
- Concepts and application of quality in Health administration which includes quality assuring, quality improvement (CQI) and accreditation in Health Administration.

## **Paper II: Epidemiology, Research Methodology, Biostatistics and Statistical methods and Demography**

### **Research Methodology**

Definition, importance and types of health research

Statement of research problem of research question, review of literature, formulation of objectives, formulation of hypothesis, specification of variables, study design, sampling design, tools and techniques of data collection, data analysis and data processing and preparation of research report.

### **Statistics and Demography**

Definition, concepts and use of statistical methods (presentation of data, measures of variability, probability, statistical distributions and test of significance, correlation and regression, sampling, multivariate analysis, time series analysis, analysis of variance):

- Vital and health statistics
- Samples registration system
- Vital registration system in India
- Role of Registrar of India- Central Statistical Organisation, NSS etc.
- District Level Household and facility Survey (DLHS), National Family Health Survey (NFHS)
- Legislation on vital events in India

- Various indicators like general and age specific mortality, infant mortality, proportionate mortality, standardized mortality rates.
- General and age specific fertility, birth rate, and indices of reproduction, PQLI, DALY, etc.
- Demographic trends and forecasting

### **Advanced statistical methods including**

i) survey techniques, ii) attitude measurements iii) system sampling analysis iv) community diagnosis v) statistical quality control charts for epidemic analysis vi) life table techniques vii) time series analysis viii) critical part analysis (PERT) ix) time and motion study x) queuing theory xi) work measurement substitutability xii) input-output analysis xiii) cost benefit and cost effectiveness xiv) linear programming xv) application of econometrics to the study of health economics.

### **Research Methods in Administration:**

Experimental research, exploratory research, administration of research.

### **Bio-statistics and Epidemiology**

#### **Vital and health statistics system as a sub-system of health administration in India:**

a) Organisation; b) Procedures; c) Data generated by the system; d) how utilised; e) Shortcomings; and f) Steps taken for improvement of the system.

An information system for health administration: a) for planning; b) for evaluation; c) for management and control d) performance budgeting; e) financial budget as an instrument for planning and evaluation.

#### **Statistical measurements and methods in the health administration process:**

Statistical methods including presentation of data, measures of variability, elementary concepts of probability, standard distributions and sample tests of significance, correlation and regression, elementary ideas of sampling.

#### **Applied aspects of statistical methods:**

These include measures of fertility, mortality and morbidity, ideas of efficiency of working of health institutions, statistical methods in health planning, manpower studies, special measurements in evaluation of health programmes, study designs specially applicable in health e.g. clinical trials, evaluation follow-up studies and longitudinal studies, Statistical methods used in Thesis writing & preparation.

### **Epidemiology**

- Definition, concepts, principles and use of epidemiology
- Natural history of disease and role of hospital in various levels of prevention
- Types of epidemiology
- Methods used in epidemiological studies
- Socio-economic status and occupation as determinants in disease distribution
- Cause and effect relationship
- Age and variable in epidemiology
- Epidemiology of an acute infections disease
- Epidemiology of chronic disease or non-communicable diseases (Rheumatic Heart disease)
- Epidemiology of non-disease entity (accidents)
- How to investigate an epidemic and role of the hospital in its control
- Common disease in the India-their epidemiology and prevention
- Screening and surveys
- Vital and health statistics
- Epidemiological skills and knowledge essential for the community health administrators
- Epidemiological Surveillance

**Epidemiological skills and knowledge** essential for the community health administrators science of:

- **Epidemics:**
  - The causation and behaviour of unusual prevalence by disease, by time, by season, by age, by race and other factors.
  - Additional skills and knowledge and responsibilities essential for the administrator in his community health leadership role like.

### **Predicting Epidemics:**

- Need for predicting high incidence or threatened epidemic so that they may be either aborted or promptly controlled

- Importance of making preparations in advance, drugs, vaccine, equipment and facilities;
- Alerting the medical profession for early diagnosis and treatment;
- Public relations and maintaining public confidence in the health services

### **Controlling Epidemics**

- A continual study of incidence and prevalence; epidemic curves, preparation and maintain of charts and graphs and spot maps; quick measurement and status of community immunity;
- scientific determination of weakest link in community transmission, with skills, knowledge and disciplines necessary to break the chain of transmission at this point.

### **Preventing Epidemics**

- Maintenance of surveillance of disease status in community; maintaining community immunity at safe level.
- Adequate provision for quick early diagnosis and treatment

### **Managing Epidemics:**

- Public information and publicity, public relations relative to specific diseases, time and incidence, age and location, factors, public and professional education through newspapers, radio and television reporting,
- developing skills in communication written and spoken.
- Emergency, fire-fighting equipment and teams for immunization campaign and mass treatment programmes.
- Mapping up - catastrophe planning provision of reserves and organisation for contingency.

## **Paper III: Community Health Administration including Health Programmes and Public Health Laws.**

### **Historical and Philosophic basis for community health work**

- Basic human needs and how they are met in different societies:
- Dependency, ill health, maladjustment, recreational and educational requirements are basic human problems common to all societies. These problems are met with varying degrees of emphasis, in different societies depending upon their level of socio-economic development. This course provides a perspective in viewing health care as a component of basis human problems on the canvas of socio- economic conditions of the Indian Society.
- Classification of basic human needs in different societies



- Community health, socio-economic justification for public welfare

#### **Philosophic basis for Community Health Work:**

- The community as the patient of the health agency,
- history of evolution of community patient concept from segment centred disease concept,
- multi-disciplinary team approach to community health diagnosis,
- tools and techniques utilised in community diagnosis,
- Lecture, Seminar discussions and laboratory work.

#### **Health Services - History and Development:**

The course deals with organizational and administrative aspects of various systems of providing health care services. Historical evaluation of health services in India; health organization in pre-independence.

- Bhore Committee recommendations; health in the Indian constitution; health in five year plans,
- Mudaliar Committee recommendations; concepts of integrated health services,
- Bajaj Committee recommendations,
- The present health organization at the centre and the states; centre state relationships; problems and possible solutions within the constitutional framework.
- Health organizations under local health agencies; legal and working relationship between Government and local health agencies.

#### **Evaluation of Health Care Programmes:**

- Purpose of evaluation, periodicity of evaluation: methodology of evaluation to include identification of initial, intermediate and ultimate objectives,
- Declaration of idea for evaluation, assessment of the suitability and adequacy of the organization for achieving the set objectives,
- Scrutiny of the processes and policies related to the programme,
- Detection of problems requiring research studies for their solution, evaluation of the training contents of the courses for the personnel of the organization.

Evaluation of the administrative aspects of programme:

- a) Study of organizational efficiency through work measurement by employing work units, procedure, analysis and control techniques to elicit information on the procedure and time required for different activities.

- b) Managerial - assessment of the human relations aspects of the organization by having information on communications, supervision, inspection and team work.
- c) Fiscal - by obtaining information on the decentralization of financial powers which promote operational efficiency of the organization and logistics – by obtaining information on the adequacy and timely (or otherwise) supply of equipment, materials, transport etc.

### **Natural History of Disease, Disorder and Injury**

This is the science of assembling, ordering and analysis of knowledge and data from many sources about the interacting host agent and environment that leads to description of the dynamic natural history.

This is the scientific foundation upon which the public health administrator must build the essential background skills and knowledge. He must now change his focus from the agent or from the hospital to what he was previously considered the environment. But now in this change of focus the community becomes the patient, the host, a different and distinctive host, not an aggregate of individuals in a community. This newer host, the community has the same agent of disease or disorder plus man the individual as an agent of disease and disorders.

This newer host has the new environment, in addition to the individual environment of its component parts – a total community environment, community economy, a community political entity, community social and cultural areas – community illness and community health – these may or may not relate directly to any individuals, health status or environment.

Such a change is profound as it involves in a sophisticated way the skills and knowledge of many new disciplines and professions not previously primarily concerned with health or with the term epidemiology. It involves new methods and tools, new concepts and philosophies – to provide new knowledge in scientific study of community complaints, community systems, community health status health tests, their analysis, community diagnosis, prognosis and treatment and follow up or evaluation and planning

### **Man and his Environment:**

This may be called the new epidemiology dealing with man in the aggregate, the mass and its relationship to the mass environment. The epidemiology becomes a common meeting ground for clinical and administrative medicine, increasing other disciplines and their participation and contribution such as biostatistics, psychology, sociology.

## **Community and its Environment: (Health Status and Problems)**

This is community epidemiology – on even newer development. It is part of a political entity, or social entity, or industrial entity – a community and that community's interaction and reaction to its environment as it relates to that community's health. This is a much more complicated.

This science deals with 1) the causes of community of function disorder in health matters 2) diagnosis of organizational pathology 3) health and disease status of organisational patterns and functions.

This is the distinctive body of knowledge. These are the distinctive skills and competence of health administrator.

### **Role of epidemiology in administration of non-communicable diseases:**

This course covers administrative implications based on epidemiological characteristics of a few selected non-communicable diseases like cancer and cardiovascular diseases.

### **Ecology of health and disease:**

Disease is a biologic process that conforms to the laws of biologic behaviour. The laws of ecology govern the behaviour of living things in disease as in health for man as for other animals. Definitions: ecology of health; natural history of disease; its application to the community as a patient; steps & tools in solving community health problems: clinical experimental, epidemiological and statistical.

### **Basic Health Services:**

This course presents administration of basic health services in the context of integrated health services at the peripheral, intermediate, state and national levels, pros and cons of vertical approach to health programmes *vis-a-vis* integrated health services; concept of comprehensive health care with emphasis on levels of evolutionary processes.

Role of urban local authorities, administration of all the ingredients of basic health services, viz., MCH, family planning, communicable disease control, environmental sanitation etc. is covered.

### **Administration of other health programmes**

- Programme of Control of Malaria, Filariasis, Kala Azar, Leprosy, Tuberculosis, Blindness, Diarrhea Diseases, Venereal Diseases, Goitre, Vit. A deficiency and Nutritional Anemia.
- Universal Programme of Immunization

- Health Programmes for special groups: Expectant mothers, Infants and toddlers, School children, Industrial labour
- Emergency and disaster services
- Occupational health.
- Concepts and principles of Health Programme/Project Planning
- Role and functions of National Health Institutions, AIIMS, ICMR, NICD, CHEB, NIN, and PGI.
- Public Health Legislation- Enactments for protection of public health in India e.g. Prevention of Food Adulteration: Drugs and Cosmetics Act etc.

#### **Emergency and Disaster Services:**

- Role of official and voluntary agencies in community disasters such as epidemics, floods, storms, fire, riots, earthquake, enemy attacks by air on civil population, etc.
- Administrative and programme changes necessary to meet community emergencies to handle casualties and hazards to the community health.

#### **Occupational health and other related welfare services in industry and mines.**

Organisation and function of industrial health administrative services dealing with problems and control of exposure to occupational diseases and the industrial accident hazards and problems in integration of occupational health services with local health services.

#### **The Health Care Industry**

- Components of health care industry, hospital as a major industry.
- Estimating hospital operating costs, in-patient and out-patient services.
- Ownership and control of hospitals.

#### **International assistance in health development**

Role of WHO/UNICEF: Technical Assistance and its limitations.

#### **Law in Community Health Administration:**

- Legal foundations for community health programmes,
- Promulgation and enforcement of health legislation; Services and responsibility of national, state and local health agencies functions in community health.
- Legal provisions of drug adulteration act, epidemic disease act etc.

#### **Health and Extension Education:**

- This course covers communication theory applicable to educational aspects of community health introduction to group process in learning;



- Psycho-sociological concepts and theories basic to practice of community health education,
- Educational process in community health: methods and media utilised by all health personnel.

#### **Field Practice:**

- Supervised field visits to gain experience in state, district and primary health centre administration. A supervised field study of programme management (direction, coordination, supervision and evaluation) activities in administration at all level experience in selected health agencies - management of a district hospital; urban health agencies - management of a body,
- Problems in administration of a graduate teaching institution and its attached hospital
- Study of administration in training institutions for para-medical and auxiliary health workers,
- Study of organisation and administration of district laboratory, services, etc.

### **Paper IV: Medical Care and Hospital Administration**

#### **Hospital Administration**

Medical care and hospital administration are considered in the overall framework of health administration. Medical and hospital care are considered as inseparable parts of community health administration. The course is not intended for training in the hospital administration field but seeks to impart a fairly deep insight into the organisational and managerial aspects of hospital administration. It seeks to enable the health administrator to plan, supervise, coordinate and evaluate different aspects of community and personal health programmes.

#### **History and Development of Hospitals**

- History and development of hospitals in general and in India
- The changing functions of the hospital
- Hospital as a community institution

#### **Medical Care and Hospital Administration**

- Scope and concept
- Organization of medical care: Medical ethics.
- Social Security and medical care
- Medical care including hospital systems in India

- Study of the administration of health delivery system under railways, defence, public sector undertakings, C.G.H.S and E.S.I. and social security measures
- Mediclaim: medical insurance in India
- Medical care system in other countries (developed and developing)
- International organizations related to Health Services.
- Planning and evaluation of medical care

### **General principles of hospital administration:**

Principles of general administration as they apply in the hospital i.e. planning, organising, staffing, implementation, supervision, coordination, direction, control and evaluation.

### **Hospital Organisation and Management:**

- Theories of organization,
- Types of organization components of the hospital, e.g. OPD, wards, casualty and emergency, medical services, surgical services, paediatric services, dental services, eye and ENT services, psychiatric services, operation theatre, recovery room, physical medicine and rehabilitation, intensive care units, diagnostic facilities like laboratory and radiology etc. ancillary and supportive services like dietary, house keeping, linen and laundry, ambulance services, medico-social services, pharmacy services, central sterile supply department, voluntary service, mortuary and care of dead, business departments like personnel office, business office, material management admitting office etc. All these components of the hospital will be studied with special reference to: importance, functions policy and procedures, standing orders relationship with other departments, organization and personnel, equipment and supplies, utilization and workload, record and forms, location, area and space, planning considerations.

### **Hospital Planning**

Need for and principles of planning, measurements of community needs and potential fiscal support, role of the architect and hospital administrator, planning a general hospital, planning different components and services of the hospital, architecture and disaster planning.

### **Evaluation of Hospital Care**

- Importance and need
- Techniques of evaluation: quantitative evaluation, qualitative evaluation

- importance of medical records in evaluation & medical audit.

### **The Hospital Administrator**

Qualities of hospital administrator, his education and training, problems of hospital administration.

### **Medical Care Administration Scope and concept of medical care:**

- History and development of medical care in the world and in India,
- Concepts of medical care,
- Need and demand for medical care,
- Availability and cost of medical care,
- regionalization of medical care.

### **Organization of Medical Care:**

- Critical analysis of various important reports on medical care in India
- Patterns of medical care organisation in the world
- Patterns of medical practice
- Community development and medical care administration
- Organization of long term care, rural medical care, municipal medical care military medical care, medical ethics etc.

### **Social Security and Medical Care:**

- Concepts, development and role of social security health insurance in various countries
- Health insurance in India
- Industrial medical care and medical care administration.

### **Planning and Evaluation of Medical Care:**

- Principles of medical care planning
- Problems in medical care planning
- Evaluation of medical care tools and techniques of evaluation.

### ***Psychomotor domain:***

**The student should acquire skills in the following areas:**

### **COURSE CONTENTS FOR PRACTICALS**

1. Microbiology applied to Public Health i.e. Hands off experience in staining techniques and interpretation of:

- Various stains
- Peripheral blood examination of thick and thin smears and reporting
- Collection and dispatch of samples to laboratory

- Experience in the collection, examination and interpretation of simple laboratory tests on blood, stool and urine.
- Interpretation of commonly used serological tests such as Widal/HIV/Hepatitis B /VDRL/Viral Antibody Titres

## 2. Medical Entomology

- Collection of mosquitoes/fleas/ticks/other
- Hands on experience on mounting and reporting
- Entomological Survey

## 3. Public Health Chemistry

- Interaction of commonly used tests with reference to water solutions / water purifiers

## 4. Epidemiological Exercises and Case Studies (including family studies) to illustrate principles and practice of community Health

- Statistical exercises to illustrate principles and practice
- Investigation of an outbreak of a disease and measures to control

## 5. Exercises in Public Health Administration

- Planning Exercises
- Inventory control techniques including ABC, VED Analysis etc
- Reorder level and Buffer Stock calculation
- Break Even Analysis
- Beneficiary Need Analysis
- Preparation of Annual Plan
- Budgeting at the PHC level
- Supervision of a PHC/SC
- Requirement of Vaccines, Medicines, Stationary at the PHC level
- Organisation of a Family Welfare Camp
- Conduction of an Immunization Camp

## 6. Diet and Nutritional Survey of a Community

- Collection and dispatch of food samples

## 7. Study of environment and its influence on health in

- Work Places
- House-hold
- Community



- This includes the study of air pollution, noise pollution, temperature, humidity and other meteorological factors and their effect on health.

8. Study of sanitation problems to illustrate the principles and practice of community Health

9. Environment Sanitation

- Collection of Water Samples/Analysis/Reporting
- Analysis of physical, chemical and microbiological quality of water
- Study of Waste Management Methods
- Adaptation of water supply methods and waste disposal methods to an industry or Plantation setting
- Study of requirement of water in urban and rural setting

10. Visits/Postings to the following institutions

- District Health Office
- District Hospital
- Taluka Hospital
- PHC/ SC/CHC
- ICDS office /Anganwadi Centre
- Public Health Laboratory
- Sewage Treatment Plant
- Visit to Local Ward Office
- Infectious disease Hospital
- Malaria/DTC/Filaria units
- Visit to factory/Inspectorate of factories/visit to Industry
- Home for the aged
- Blindness Rehabilitation schools
- Deaf and Dumb schools
- Spastic society
- Physically Handicapped Centre
- Market Place
- Slaughter Home
- Hotel
- Milk Dairy
- Food and Beverages Processing Units

11. Hospital Management

- Queuing Theory
- Work Study
- Architectural Brief
- Medical Audit

- Utilization Indices
- Hospital Infection Control
- Biomedical Waste Management

**Practical training of students in Health Administration.**

Title	Content of training activities	Learning objective
Orientation	Brief orientation to computer system, Health Management activities, teaching program	Be conversant with computer system & objectives and various activities of the department.
Management Science & Public Administration	Principles, Concepts, Functions & Techniques of Management. Public Administration, Constitutional and legal framework of Public Administration in India. Constitutional provisions related to Public Health.	Should be able to understand & apply the correct principles & Techniques of Management. Able to enumerate Constitutional provisions related to Public Health.
Behavioral & Social Science	Leadership styles, Theories of motivation and their implications in health Attitudes and values, Groups' dynamics and Team Building, Conflict Resolutions, Social change, Social marketing,	Should be able to understand and apply the appropriate leadership styles, conflict resolutions & Motivational Theories in team building & organizational development.
Research Methodology	Statement of research problem and research question, review of literature, formulation of objectives, formulation of hypothesis, specification of variables, study design, sampling design, tools and techniques of data collection, data analysis and data processing and preparation of research report.	Should be able to define & understand importance and types of health research, Able to formulate the objectives, hypothesis, specification of variables, study design, sampling design, tools and techniques of data collection, data analysis and data processing and preparation of research report.
Epidemiology & Bio-statistics	Definition, concepts, principles and uses of epidemiology. Natural history of disease and role of hospital in various levels of prevention. Types of epidemiology, Methods of epidemiological studies, Common rates & ratios, Epidemiological Surveillance. Vital and health statistics system as a sub-system of health administration in India.	Should be able to interpret the causation and behaviour of unusual prevalence, by disease, by time, by season, by age, by race and other factors. Able to use the statistical methods (presentation of data, measures of variability, probability, statistical distributions and test of significance, correlation and regression, sampling, multivariate analysis, time series analysis, analysis of variance etc.)
Community Health Administration,	Health Policy in planning project formulation, Organization for project implementation. National Health Policy, National Population Policy, Principles and concepts in health planning.	Should be able to discuss Health manpower planning- concepts, methods and planning cycle, National health programmes, like NRHM, their objectives, operations, achievements and constraints. Monitoring and Evaluation in Health Services, Public health laws at centre, state and local laws related to various areas like Registration of Vital events, food adulteration, Drug

		and Industrial health and municipal health.
Communication	Fundamentals of communication process, Models of communication, Barriers of effective communication, Organisation communication, Communication for health and development, IEC: Concepts and strategies Communication for behavior change (BCC), Social mobilization: meanings and methods, Community needs assessment in a community	Should be able to understand purpose and methodology of communication, and apply the concepts and strategies Communication for behavior change, (BCC), Social mobilization: meanings and methods,
Planning & Development of various areas of Hospital	Principles of planning, measurements of community needs and potential fiscal support, role of the architect and hospital administrator, planning a general hospital, planning of different components and services of the hospital,	Should be able to design & organize different departments & service areas of a hospital.
Education & Training	Objectives and role of health education, methods and materials of health education, planning and evaluation of health education programme.	Describe common procedures and basic concepts of determining the training need assessment and its application.
National health Programmes	Concepts and principles of National Health Programmes/Project Planning, Role and functions of National health institutions,	Should be able to discuss and apply the Concepts and principles of National Health Programme and evaluation of the same for its effectiveness.

## ***TEACHING AND LEARNING METHODS***

### **Theoretical training includes:**

- Didactic lectures
- Web learning: On-line literature reviews and peer-reviewed articles
- Health Management committee meeting
- Grand rounds, seminars, conferences, and lectures
- Regional or national meetings, Web-based lectures, and audio conferences
- Students should be encouraged to present abstracts in the workshops, seminars etc. on the subject concern.
- Research Projects
- Students should be given the opportunity to participate in applied or basic science projects related to Health administration in addition to their MD dissertation.

These should be imparted to the students through:

- Lectures, seminars, symposia, Inter- and intra - departmental meetings, Field visits, Posting in Rural and Urban Field Practice Demonstration Areas

(FPDA), journal club and case studies. **Records of these are to be maintained by the department.**

- The postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.
- A postgraduate student of a postgraduate degree course in broad specialities/super specialities would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
- **Log book:** During the training period, the post graduate student should maintain a Log Book indicating the duration of the postings/work done in Wards, OPDs and Casualty. This should indicate the procedures assisted and performed, and the teaching sessions attended. The Log book shall be checked and assessed periodically by the faculty members imparting the training.
- Department should encourage e-learning activities.
- The students should carry out a research project for thesis submission. Thesis should be submitted at least six months before the final examination. Acceptance of the thesis would be prerequisite to appear for the final Examination.
- The students should attend and actively participate in CMEs, Conferences by presenting papers.

#### **Practical and Clinical Training**

- Emphasis should be on self-learning, group discussions and case presentations.
- Student should be trained about proper methods of collection, collation and analysis of data and to convert them into meaningful information which can be used to diagnose/to identify the public health problem and to take the appropriate administrative decision to solve it.
- Details of 3 years posting in MD program (6 semesters of 6 months each) is given below:
  - a. **Allied postings should be done during the course** – for 12 weeks
    - i. Pediatrics - 2 weeks
    - ii. Obstetrics & Gynaecology - 2 weeks
    - iii. Medicine - 2 weeks
    - iv. Surgery - 2 weeks
    - v. Various Support Service areas of Hospital like Emergency department, OPD, diagnostic facilities, in-doors, OT, Medical Record, CSSD, Linen and Laundry, Diet Services, Infection Control & Waste Management. Medical Store, Control Room. etc - 4 weeks.
  - b. Details of training in the subject during residency posting



**Writing clinical notes regularly and maintains records.**

1<sup>st</sup> & 2<sup>nd</sup> Semester – Working under supervision of senior PG students & Teaching faculty in management of various administrative works related to public health administration.

3<sup>rd</sup> to 6<sup>th</sup> semester – Independent duties in management of various administrative works related to public health administration under supervision of teaching faculty)

**Training in allied departments:**

Students should be sent for training for 3 months in following clinical departments and support service areas of the hospital.

**Clinical Departments:**

Medicine, Surgery, Obstratics & Gynaecology, Pediatrics, General OPD, Emergency, Diagnostic services, OT, etc.

**Support Service Departments:**

Medical Record, Medical Store, CSSD, Linen & Laundry, Dietary services, Infection Control & Waste Management, Engineering Services, etc.

**Posting to Obstetrics and Gynecology**

**1. Obstetrics (Urban and Rural Health Centres)**

- Antenatal Care
- High Risk pregnancy
- Intranatal care - The Management of normal Labour
- Postnatal Care
- Family Welfare

**2. Gynecology**

- Adolescent Health
- Reproductive Tract Infections
- Cancer of the reproductive tract especially Carcinoma cervix

**Posting to Pediatrics (Hospital and ICDS)**

1. Pediatric Infectious diseases
2. Nutrition problems
3. Immunization
4. Neonatal Problems
5. Growth and development monitoring

**ASSESSMENT**

**FORMATIVE ASSESSMENT, during the MD training programme:**

**Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self directed learning and ability to practice in the system.**

### **General Principles**

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning; it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and clinical examination.

### **Plan for formative assessment:**

**Quarterly assessment during the MD training should be based on:**

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and Outreach Activities / CMEs

**The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I).**

### **SUMMATIVE ASSESSMENT, at the end of the training**

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.

The postgraduate examination shall be in three parts:

#### **1. Thesis**

Every post graduate student shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis. Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the post graduate student to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature.

Thesis shall be submitted at least six months before the Theory and Clinical / Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A post graduate student shall be allowed to

appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

## 2. Theory examination

### **The Post Graduate Examination shall be in three parts:**

There should be 4 theory papers

**Paper I:** Basic concepts in Community Medicine, Social Medicine & Management Sciences.

**Paper II:** Epidemiology, Research Methodology, Biostatistics and Statistical methods & Demography.

**Paper III:** Community Health Administration including Health Programmes and Public Health Laws.

**Paper IV:** Medical Care & Hospital Administration.

**Question paper** - 10 short note type questions.

### **Practical examination pattern –**

A] **Long Case** - one

B] **Short Case**- one

C] **Spots** (minimum 10)

D] **Communication / presentation skills**

The candidate will be required to present a topic of his / her own choice in power point format for 10 min. The candidate will be examined on the presentation style, communication skill, slide design and content.

E] **Thesis defence**

F] **Log book discussion**

G] **Grand Viva Voce**

### **Recommended Reading:**

#### **Books (latest edition)**

1. Maxcy Roseman, John M.Last, Maxcy-Roseman. Public Health and Preventive Medicine, Appleton-Century-Crofts, New York
2. Gordis L. Epidemiology
3. Hobson W. The Theory and Practice of Public Health, Oxford Med. Publication
4. Barker DJP. Practical Epidemiology, Churchill Livingstone
5. Park J E & K Park. Text Book of P & S.M., M/s Banarsidas Bhanot, Jabalpur
6. Kishore J. A Dictionary of Public Health, Century Publications.
7. Mahajan B K and Gupta M C. Text Book of P & S.M., Jaypee Publications

8. Bradford Hill. Principles of Medical Statistics, The Lancet Ltd. Adam Street, Adelphine, London.
9. Mac, Mahon & Pugh, Epidemiology-Principles and Methods, Little Brown and Co. Boston, U.S.A.
10. Hunter's Diseases of Occupations, Edited by PAB. Raffle, PH. Adams, PJ. Baxter and WR. Lee Edward Arnold Publishers, Great Britain.
11. Kishore J. Biomedical Waste Management in India, Century Publications.
12. A P Kulkarni and Baride. Text book of PSM.
13. Committee reports and policy documents – Medical Education and Health Policy:
  1. Bhore Committee Report (1946) Health Survey and Development Committee, Government of India, Delhi.
  2. Mudaliar Committee Report (1961) Health Survey and Planning Committee, Government of India, Delhi
  3. Shrivastav Report (1974), Health Services and Medical Education, A programme for immediate action, Group on Medical Education and Support Manpower, Ministry of Health and Family Welfare, Government of India, New Delhi.
  4. CSSR/JCMR (1981). Health for All- An alternative strategy – Report of a Joint study group of ICSSR/ICMR, Indian Institute of Education, Pune.
  5. National Health Policy, (1982) Ministry of Health and Family Welfare, Government of India, New Delhi.
  6. Compendium of Recommendations of various committees on Health and Development (1943-1975), Central Bureau of Health Intelligence (1985) Directorate General of Health Services, Ministry of Health and Family Planning, New Delhi.
  7. Bajaj, J.S. etal (1990) Draft National Education Policy for Health Sciences, I.J.M.E. Vol.29, No.1 & 2 (Jan-August 1990).
  8. P.V.Sathe. Epidemiology and Health Management.
  9. J.Kishore. National Health Programmes of India
  10. O.P.Ghai. Preventive Paediatrics
  11. K.Vishvesh Rao. Statistics

## **Journals**

03-05 international Journals and 02 national (all indexed) journals



**Postgraduate Students Appraisal Form  
Clinical Disciplines**

Name of the Department/Unit :

Name of the PG Student :

Period of Training : FROM.....TO.....

Sr. No.	PARTICULARS	Not Satisfactory			Satisfactory			More Than Satisfactory			Remarks
		1	2	3	4	5	6	7	8	9	
1.	Journal based / recent advances learning										
2.	Patient based /Laboratory or Skill based learning										
3.	Self directed learning and teaching										
4.	Departmental and interdepartmental learning activity										
5.	External and Outreach Activities / CMEs										
6.	Thesis / Research work										
7.	Log Book Maintenance										

Publications

Yes/ No

Remarks\*

**\*REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.**

SIGNATURE OF ASSESSEE    SIGNATURE OF CONSULTANT    SIGNATURE OF HOD