

SYLLABUS FOR DIPLOMA IN PUBLIC HEALTH (D.P.H)

Goal:-

The candidate during and after the training should be able to implement the knowledge, skills & advances of public health for prevention, control, elimination of diseases of public health importance.

Objectives:-

Knowledge

- a) The candidate should have the knowledge regarding epidemiology, prevention, control & management of diseases of public health importance.
- b) Knowledge of all relevant public health laws and institutions of public health importance.
- c) The candidate should be able to discharge his/ her duties effectively in an administrative capacity in a health organization such as Municipal Corporation.

Skills

- a) Should acquire administrative skills essential for smooth functioning of health establishments
- b) Should be able to conduct epidemiological investigation of various diseases during epidemic.
- c) Should know the criteria for sanitation of various place viz slaughter house, eateries, sewage treatment plants, ports & airport, milk dairies and be in position to inspect & recommend corrections.
- d) Should be able to plan, implement & evaluate school health services
- e) Should be able to plan, implement & evaluate programmes related to Occupational Health.

DETAIL SYLLABUS:

1) Introduction –

- 1.1 Prevention of diseases in the community
- 1.2 health situation- past & present
- 1.3 History of public health
- 1.4 Place & role of preventive medicine in development of social medicine, community health, community medicine.

2) Applied aspects of Preventive Medicine –

2.1 Health

2.1.1 Changing concepts

2.1.2 Definition

2.1.3 Dimensions

2.1.4 Concepts of wellbeing

a) PQLI

b) HDI

2.1.5 Spectrum of Health

2.1.6 Determinants of Health

2.1.7 Rights & responsibilities

2.1.8 Indicators of health

a) Mortality

b) Morbidity

c) Disability

d) Others

2.1.9 Health care system

a) Characteristics

b) Levels

c) Primary Health Care

2.2 Disease

2.2.1 Concept

2.2.2 Natural history of diseases

a) Epidemiological triad

b) Risk factors

2.3 Concepts of control

2.4 Concepts of prevention

2.4.1 Modes of interventions

2.4.2 Levels of preventive health services (urban & rural)

2.5 Health Management

3) Biostatistics

3.1 Introduction

3.2 Data

3.2.1 Sources & uses of data.

3.2.2 Types of data

3.2.3 Collection & Presentation

3.3 Centering constants

3.3.1 Measures of variation

3.3.2 Normal, Binomial & Poisson distribution

3.3.3 Concept of probability

3.4 Sampling methods

3.5 Test of significance

3.6 Correlation & regression

3.7 Clinical Trial

3.8 Statistical fallacies

3.9 Non-parametric tests

3.10 Statistical exercises

3.11 Operational research.

3.11 Vital statistics

- 3.11.1 Sources of vital statistics
- 3.11.2 Registration system
- 3.11.3 Definition & uses
- 3.11.4 Morbidity & mortality rates
- 3.11.5 Standardization of death rates
- 3.11.6 Life –table
- 3.11.7 Fertility rates
- 3.12 Use of computers & their application in Public Health.

**4) Environment & Health –
Planning and management for provision of safe water**

- 4.1 WATER
- 4.2. Water in relation of health & diseases
 - 4.2.1 Sources & uses
 - 4.2.2 Pollution
 - 4.2.3 Purification
 - a) **On large scale**
 - i) Storage
 - ii) Filtration
 - iii) Disinfection
 - b) **On small scale**
 - i) Household level
 - ii) Disinfection of well
 - 4.2.4 Quality
 - a) Criteria & standards
 - 4.2.5 Hardness of water
 - 4.2.6 Swimming pool sanitation
 - 4.2.7 Horrock’s apparatus
 - 4.2.8 Public health laboratory and its functions in this context
- 4.3 Air & health
 - 4.3.1 Indices of thermal comfort
 - 4.3.2 Pollution
 - a) Sources
 - b) Pollutants
 - c) Monitoring
 - d) Effects
 - e) Prevention & control
- 4.4 Housing
 - 4.4.1 Social goal
 - 4.4.2 Standards
 - 4.4.3 Housing & health
 - 4.4.4 Overcrowding
 - 4.4.5 Indicators
- 4.5 Industrialization & health
- 4.6 Radiation & health
 - 4.6.1 Sources
 - 4.6.2 Types
 - 4.6.3 Units
 - 4.6.4 Biological effects
 - 4.6.5 Protection

- 4.7 Air temperature
 - 4.7.1 Measurement
 - 4.7.2 Effects of heat on human health
 - 4.7.3 Effects of cold on human health
 - 4.7.4 Global warming
- 4.8 Hazardous wastes & health
 - 4.8.1 Planning and management of safe disposal of solid waste
 - 4.8.2 planning and management of safe disposal of bio-medical waste
- 4.9 Noise & health
 - 4.9.1 Sources
 - 4.9.2 Properties
 - 4.9.3 Effects
 - 4.9.4 Control
- 4.10 Safe Disposal of Municipal waste
 - 4.10.1 Liquid waste
 - 4.10.2 Solid Waste

5) Nutrition & health

- 5.1 Chemistry & physiology of food
- 5.2 Nutritive value of food & planning of balanced diet
- 5.3 Food processing & preservation
- 5.4 Nutritional problems
 - 5.4.1 LBW
 - 5.4.2 PEM
 - 5.4.3 Xerophthamia
 - 5.4.4 Nutritional anaemia
 - 5.4.5 IDD
 - 5.4.6 Endemic flurosis
- 5.5 Nutritional factors in selected diseases
- 5.6 Nutritional assessment
- 5.7 Nutritional surveillance & growth monitoring
- 5.8 Food hygiene- inspection & legal provisions
- 5.9 Food toxicants, food addition, food fortification, food adulteration
- 5.10 Food standards
- 5.11 National Nutrition Policy & Programmes
- 5.12 Applied aspects of nutrition (dietetics)
 - 5.13 I.F.S.A. and BPMC acts in relation to prevention of food adulteration and various licencing procedure related to them

6) Epidemiology

- 6.1 Definition & aims
- 6.2 Epidemiological approach
- 6.3 Basic measurement in Epidemiology
- 6.4 Types of Epidemiological studies
 - 6.4.1 Observational
 - a) Descriptive
 - b) Analytic
 - 6.4.2 Experimental
- 6.5 Association & causation
- 6.6 Uses of Epidemiology

- 6.7 Infectious disease Epidemiology
- 6.8 Investigation of an epidemic of Leptospirosis, Malaria, Dengue in Urban set
Up & in post disaster situations
- 6.9 Health advice to travelers
- 6.10 Disinfection
- 6.11 Control of hospital acquired infections
- 6.12 Screening for diseases

7) Microbiology

- 7.1 General characteristics & morphology
- 7.2 Laboratory techniques used in the study of microbial agents of public health importance.
- 7.3 Collection & forwarding of different samples for bacteriological & serological analysis
- 7.4 Serological reactions
- 7.5 Immunity.

8) Protozoology

- 8.1 General characteristics
- 8.2 Classification & Morphology
- 8.3 Disease causation
- 8.4 Laboratory techniques used in the study & control of protozoal infestations of public health importance.

9) Entomology

- 9.1 General characteristics
- 9.2 Classification & Morphology
- 9.3 Bionomics
- 9.4 Disease transmission & control of insects of public health importance.

10) Helminthology

- 10.1 General characteristics
- 10.2 Classification & Morphology
- 10.3 Life cycle of helminthes
- 10.4 Natural history of diseases
- 10.5 Prevention & control of helminthes of public health importance

11) Epidemiology of communicable diseases

- 11.1 Exanthematous fevers
- 11.2 Air borne infections
- 11.3 Contact infections
- 11.4 Water-borne & food borne disease
- 11.5 Vector-borne diseases
- 11.6 Zoonotic diseases
- 11.7 Surface infections
- 11.8 Emerging & re-emerging infectious diseases
- 11.9 Hospital acquired infections
- 11.10 National Health programmes for control/ elimination/ eradication of communicable diseases.

12) Epidemiology of non-communicable diseases

- 12.1 Cardiovascular diseases
- 12.2 Cancer
- 12.3 Diabetes mellitus
- 12.4 Disasters
- 12.5 Blindness
- 12.6 Accidents
- 12.7 Obesity.

13)Mental health

- 13.1 Health & diseases
- 13.2 Concept of
 - a) Normality
 - b) Mental health
- 13.3 Magnitude of the problem
- 13.4 Prevention of mental diseases
- 13.5 Alcohol related & drug related problems
- 13.6 Mental health services in India.

14)Geriatrics

- 14.1 Concept of Aging
- 14.2 Demographic scenario
- 14.3 Principles of underlying preventive geriatrics,
- 14.4 Preventive strategies for improving quality of life.

15)Reproductive & Child Health (RCH)

- 15.1 Introduction
 - 15.1.1 Mother & Child as one unit
- 15.2 Care of mother during
 - 15.2.1 Antenatal period
 - 15.2.2 Intranatal period
 - 15.2.3 Postnatal period
- 15.3 Care of children
 - 15.3.1 Neonatal care
 - 15.3.2 Care of infant
 - a) Feeding of infants
 - b) Immunization
- 15.4 Care of pre-school child
- 15.5 Growth & development
- 15.6 School health
- 15.7 Adolescent health
- 15.8 Indicators of RCH services
- 15.9 Reproductive & child health (RCH) Programme & services
- 15.10 Postpartum Programme
- 15.11 Family welfare programmes
- 15.12 Child labour.

16) Social sciences

- 16.1 Medical sociology
- 16.2 Social Anthropology
- 16.3 Introduction to social sciences & their application in public health.

17) Medical Ethics

18) Demography & Population Control

- 18.1 Introduction
 - 19.1.1 Definition
 - 19.1.2 Demographic cycle
 - 19.1.3 Population Pyramid
- 18.2 Fertility
 - 19.2.1 Factors affecting fertility
 - 19.2.2 Indicators of fertility
- 18.3 Population explosion as a public health problem
- 18.4 Approaches for population control.
 - 19.4.1 Family planning
 - i) Definition
 - j) Scope
 - k) Health aspects
 - l) Methods
 - i) Spacing methods
 - ii) Terminal methods
- 18.5 Delivery system
- 18.6 National family welfare programme

19) Occupational Health

- 19.1 Definition
- 19.2 Ergonomics
- 19.3 Occupational diseases & their prevention
- 19.4 Occupation related legislation
- 19.5 Sickness absenteeism
- 19.6 Social security
- 19.7 Organization of services.

20) National Health Programme in India

- 20.1 National Anti Malaria Programme
- 20.2 Revised National Tuberculosis control Programme
- 20.3 National Leprosy Elimination Programme
- 20.4 National Filariasis Control Programme
- 20.5 National Family Welfare Programme
- 20.6 Universal immunization Programme
- 20.7 Reproductive & child health Programme
- 20.8 ICDS
- 20.9 National Programme for control of blindness
- 20.10 National Cancer control Programme
- 20.11 National water supply & sanitation Programme
- 20.12 National mental health Programme
- 20.13 National AIDS control Programme
- 20.14 National Acute Diarrheal Disease control Programme
- 20.15 National Iodine Deficiency Disorder control Programme

21) Health care delivery system

- 21.1 Patterns of health care delivery
- 21.2 History of development of health care delivery system in India
- 21.3 Reports of different committees

- 21.4 Three-tier health care delivery system
 - 21.4.1 Primary health center
 - 21.4.2 Subcentre
 - 21.4.3 CHV
- 21.5 Urban health infrastructure.

22) Health management & health planning

- 22.1 Definition
- 22.2 Planning cycle
- 22.3 Management methods & techniques (PERT, CPM)
- 22.4 Personnel, financial & material management.
- 22.5 Principles of planning of health services at district/ PHC level.
- 22.6 Activity planning for epidemics, floods refugees
- 22.7 Hospital Management.

23) Health Economics

- 23.1 Basics of Health Economics
- 23.2 Cost trends, Demand & Supply
- 23.3 Price Elasticity
- 23.4 Health Insurance
- 23.5 Ginni Co efficient, Kankavani index

24) International Health & Telemedicine

- 25) Public health administration** including relevant laws & Public Private Partnership like Chiranjivi Yojana, Baal Sakha yajana , EMRI

26) Health Education & Communication

- 27) Role of NGO in health care delivery system**

28) Public Health Chemistry

Training Schedule:-

2 Years