



# **College of Physicians and Surgeons of Mumbai**

## **Syllabus for CPS-PG-Course**

### **DPH - Diploma in Public Health**

**College of Physicians and Surgeons of Mumbai**

**CPS House, Dr. E. Borges Marg, Parel, Mumbai – 400012.**

## **Diploma in Public Health (DPH)**

### **GOAL:**

The overall goal of training programme is to produce a competent public health specialist who can function as a leader of health team and is able to manage various National Health Programmes and to take care of health needs of community.

### **OBJECTIVE:**

At the end of training programme a postgraduate student of DPH should be:

1. Able to identify the health problems of the community and their causes and able to do community diagnosis.
2. Able to design, plan and implement a health programme.
3. Able to provide comprehensive health services to the community.
4. Able to identify unmet needs of the community.
5. Able to implement National health programmes, policies etc
6. Acquire managerial skills for effective management of health manpower and other resources.
7. Able to develop research attitude and identify solutions for health problems.

**At the end of the course, students should acquire knowledge (including higher cognitive domain) and skills in following areas**

#### **A. Cognitive domain**

1. Gross anatomy of various organ systems
2. Physiology of various systems
3. Microbiological agents, their properties and diseases caused by them.
4. Patho-physiology in various diseases, especially diseases of epidemic potential
5. Epidemiology of communicable and non communicable diseases
6. Epidemiological studies and research methodology
7. Health indicators
8. Demography

9. Fertility indicators
10. Methods in Biostatistics
11. Management techniques

**B. Affective domain**

**B. Affective Domain:**

1. Should develop communication skills to interact effectively with patients, relatives and colleagues and other hospital staff.
2. Should always adopt ethical principles and practices
3. Should be able to work a member of a team for effective care delivery system
4. Should develop an attitude to contribute effectively in the improvement, maintenance of health care delivery system of the country and to contribute in improving the health indicators of our country in comparison with the other developed world.

**C. Psychomotor domain**

**A) Clinical Skills:**

History taking and Clinical examination

Diagnosis of common ailments

Management and treatment of common ailments

Care of newborn

ANC care

PNC care

Conduction of normal delivery

Immunization

Simple Gynecological Examinations, treatment, referral.

Detection of high risk pregnancy and timely referral

Cu. T insertion & removal

AFB & grams staining of slides.

Pap's smear collection and fixing slide.

Collection of blood and conducting routine blood tests:- CBC, ESR, HB, MP

Urine – Routine

Chlorination of water

Water quality testing

Milk testing for adulteration

Application of principals of biostatistics

Community diagnosis

Organizing community programme

Health education

Leadership skills

Implementation of National Health programme

Evaluation of health programmes

Disaster management and investigation of an epidemic

Inspection of Hotel, industry, bakery and certification of the same.

## **Syllabus**

### **THEORY:**

#### **General**

History of public health

Concepts in Community health

Indicators of health

Measurement of disease burden

Principles and levels of prevention

### **MICROBIOLOGY:**

1. Common microbes of public health importance, their properties, culture techniques
2. Bacteriology examination of milk and water
3. Collection and transportation of samples
4. Disinfection, sterilization and insecticide
5. Parasitology

6. immunology

**EPIDEMIOLOGY**

1. Definition, of epidemiology
2. Measurements in Epidemiology
3. Epidemiological methods / studies
4. Descriptive epidemiology
5. Case control study
6. Cohort study
7. Experimental epidemiology
8. Other epidemiological studies
9. Association and causation
10. Routes of disease transmission
11. Principles of control
12. Epidemic – definition, types, characteristics
13. Investigation and control of an epidemic
14. Epidemiology of communicable and non communicable diseases
15. Disease surveillance at sub-centre, PHC and district level
16. Health Information system

**Maternal and Child Health**

1. ANC
2. PNC
3. Neonatal care
4. Vaccination
5. Breast feeding
6. Referral services
7. Under five clinic
8. Indicators of MCH – IMR, MMR etc, their causes and prevention / control measures
9. National Health Programmes

## **Demography**

1. Definition and demographic processes
2. Demographic cycle
3. Census
4. Methods and sources for data collection
5. population dynamics
6. Population pyramids
7. Family planning

## **School Health**

1. Problems of school going children
2. School health survey – planning and implementation
3. Prevention and control of infections at school environment
4. School health services in an epidemic / impending epidemic

## **NUTRITION**

1. Macro and micro nutrients
2. Sources of various nutrients
3. Daily requirements
4. Nutritional deficiency disorders
5. Balanced diet, Nutritional Assessments
6. Prevention of nutrition diseases
7. Nutritional programs
8. Nutritional rehabilitation
9. Assessment of nutritional status of community
10. Food fortification and enrichment
11. Food adulteration
12. Milk hygiene
13. Meat hygiene
14. Social factors influencing nutrition

## **OCCUPATIONAL HEALTH**

1. Definition and various occupational diseases
2. Environment health hazards in industries
3. Health Hazards due to chemical and biological agents
4. Prevention of occupational diseases
5. Acts and other legal issues

## **PUBLIC HEALTH ADMINISTRATION**

1. Concepts of administration, management , supervision and monitoring
2. Principles of organisation and administration
3. Health care delivery system in India
4. National health policy
5. National health programs
6. Team concept and functioning
7. Management of district health services
8. Management at PHC level
9. Mobilizing community resources and creating demand for services
10. Management of health manpower
11. Management of other resources
12. Communication skills and information / data sharing

## **SOCIOLOGY**

1. Study of Society, Community, Culture
2. Family, marriages and other institutions
3. Socialization and social control
4. Social stratification
5. Social psychology, theories and learning
6. Motivation, incentives and dis incentives
7. Knowledge, attitude and practice – Assessment and influencing health and disease

8. Leadership – qualities, types, etc.

## **HEALTH EDUCATION AND INFORMATION, EDUCATION AND COMMUNICATION**

1. Theories of learning
2. Communication
3. Principles and planning of health education
4. Methods and media

## **MENTAL HEALTH**

1. Mental health problem in India
2. National mental Health Problems

## **BIO STATISTICS**

1. Types of data
2. Measures of central tendencies
3. Measures of dispersion
4. Data presentation: Tables, graphs and maps
5. Sampling techniques
6. Determination of sample size for surveys and research projects
7. Significance tests
8. Vital statistics
9. Life tables
10. Meta analysis

## **PRACTICALS:**

### **I Microbiology applied to Public Health:**

1. Collection and dispatching of samples to Laboratory.
2. Staining techniques and its interpretation
3. Peripheral blood smears for MP- Thick and Thin, Staining and Reporting



**II Environmental Sanitation:**

1. Collection of water samples, analysis and interpretation
2. Study of requirement of water in Urban and Rural setting
3. Solid Waste Management

**III Medical Entomology:**

1. Collection of insects of Medical importance
2. Hands on experience in mounting of specimens and reporting
3. Conduct entomological survey and report

**IV Epidemiology and Statistics:**

- (a) Exercises to illustrate principles and practice
- (b) Investigation of an outbreak of disease and measures to control

**V. Inspection of places of public health importance**

1. Hotels
2. Abattoirs
3. Water storage tanks
4. Water storage at hostels
5. Milk dairy
6. Food industry

**VI. Family study – Urban and Rural**

**VISIT TO PLACES OF PUBLIC HEALTH IMPORTANCE**

1. Haffkine Institute
2. Rehabilitation Centre
3. PHC
4. Subcentre
5. IDSP unit, NPSP unit
6. Public Health Laboratory
7. Sewage Treatment Plant

8. Bhandup Water Filtration Plant
9. Bhabha Atomic Research Centre
10. Family Welfare, Research & Training Centre

**PROJECT WORK**

Project work consisting of planning, data collection, analysis and interpretation of results and discussion is mandatory for final certification for appearing for DPH exam.

**EXAMINATION PATTERN****Theory Examination:**

<b>PAPER I</b>	<b>PAPER II</b>	<b>PAPER III</b>
MCH, Occupational Health, biostatistics	School health, Health planning etc	Epidemiology of communicable and non – communicable diseases
<b>Section I</b>	<b>Section I</b>	<b>Section I</b>
Q.1. 10 Marks Q.2. 10 Marks Q.3. 10 Marks Q.4. 10 Marks Q.5. 10 Marks <b>Total 50 Marks</b>	Q.1. 10 Marks Q.2. 10 Marks Q.3. 10 Marks Q.4. 10 Marks Q.5. 10 Marks <b>Total 50 Marks</b>	Q.1. 10 Marks Q.2. 10 Marks Q.3. 10 Marks Q.4. 10 Marks Q.5. 10 Marks <b>Total 50 Marks</b>
<b>Section II</b>	<b>Section II</b>	<b>Section II</b>
Q.6. 10 Marks Q.7. 10 Marks Q.8. 10 Marks Q.9. 10 Marks Q.10. 10 Marks <b>Total 50 Marks</b>	Q.6. 10 Marks Q.7. 10 Marks Q.8. 10 Marks Q.9. 10 Marks Q.10. 10 Marks <b>Total 50 Marks</b>	Q.6. 10 Marks Q.7. 10 Marks Q.8. 10 Marks Q.9. 10 Marks Q.10. 10 Marks <b>Total 50 Marks</b>
Section I + II = 100 Marks	Section I + II = 100 Marks	Section I + II = 100 Marks
<b>Total Theory = 300 Marks, Passing = 150 (i.e. 50%) Marks in aggregate</b>		

<b>Practical Examination:</b>		<b>Marks</b>
<b>Paper - IV</b>	Cases (Long -1, Short -1)	100
<b>Paper - V</b>	Spots	50
<b>Paper - VI</b>	Viva - inspection by candidate of a place of public health importance	50
<b>Paper VII</b>	Grand viva	100
<b>Total Marks</b>	<b>(Aggregate marks for passing is 50% out of total.)</b>	<b>300</b>

TEXT BOOKS AND OTHER REFERENCES

1. Roger Detels, Robert Beaglehole, Mary Ann Lansang, and Martin Gulliford . Oxford Textbook of Public Health. Oxford University Press
2. Maxcy Roseman John M. Last, Maxcy – Roseman Public Health and Preventive Medicine, Appleton – Century – Crofts, Newyork
3. Hobson W, The Theory and Practice of Public Health, Oxford Med.Publication
4. Barker D J P, Practical Epidemiology, Churchill Livingstone
5. Park J E & K. Park, Text Book of P & S. M., M/S Banarsidasm Bhanot
6. AP Kulkarni and JP Baride. Text book of Preventive and Social Medicine
7. Mahajan B K and M.C. Gupta, Text Book of P & S.M., Jaypee Publications
8. Sir Austin Bradford Hill, Principles of Medical Statistics, The Lancet Ltd.No. 7 Adam Street, Adelphine, London, 1967
9. John J. Hanlon, Public Health Administration and Practice, MOSBY
10. Mac Mahon & Pugh, Epidemiology- Principles and Methods, Little Brown & Co. Boston, U.S.A.
11. Robert S. Godheart Mauliee E. Shills, Modern Nutrition in Health, K.M.
12. Narghese & Co.
13. Mawner & Kramer, Epid: An Introductory Text. 1985, W.B. Saunders Co.
14. Hunters Diseases of Occupations; Edited by P.A.B. Raffle, P.H. Adams, P.J.
15. Baxter and W.R. Lee Edward Arnold Publishers (1994), Great Britain.
16. Committee Report and policy documents- medical education and health
17. policy:
18. ICSSR/CMR (1981), Health for All – An alternative strategy –
19. Report of a Joint study group of ICSSR / ICMR, Indian Institute of
20. Education, Pune.
21. National Health Policy, (2017) Ministry of Health and Family
22. Welfare, Government of India, New Delhi.
23. Compendium of Recommendations of various committees on Health
24. and Development (1943 – 1975), Central Bureau of Health Intelligence
25. (1985) Directorate General of Health Services, Ministry of Health and
26. Family Planning, New Delhi.

27. Bajaj, J.S. Etal (1990) Draft National Education Policy for Health

28. Sciences, I.J.M.E...., Vol 29, No. 1 & 2 (Jan – August 1990)

### **Journals**

1. Indian Journal of Community Medicine
2. Indian Journal of Public Health
3. Indian Ournal of Preventive and Social Medicine
4. Journal of Communicable Diseases
5. Indian Journal of Maternal & Child Health
6. Indian Journal of Preventive and Social Medicine.
7. Indian Journal of Occupational Health & Industrial Medicine
8. Indian Journal of Medical Research
9. National Medical Journal of India
10. Indian Journal of Malariology
11. Indian journal of Environmental Health
12. Indian journal of Medical Education

### **International journals**

1. WHO Publications – All
2. Journal of Epidemiology & Community Health
3. Tropical Diseases Bulletin
4. Vaccine
5. American Journal of Public Health
6. Lancet
7. New England Journal of Medicine