

REVISED SYLLABUS WITH EFFECT FROM 2014-15

**REGULATIONS AND SYLLABUS  
MASTER OF PUBLIC HEALTH (MPH)**



**Department of Community Medicine  
and Public Health  
JSS Medical College  
SS Nagara  
Mysore- 570015**

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## **SECTION –I**

### **GENERAL INFORMATION**

#### **Scope**

The aim of JSS University in starting Master of Public Health is to create Public Health professionals for delivering better health care. It is one among the most widely recognized profession with credentials for leadership in public health. MPH caters to the increasing demand for Public Health graduates in National and International Non Governmental organizations (NGOs), Public and Private sector and in various health research institutes.

#### **About Public Health**

During the 20<sup>th</sup> century, the dramatic increase in average life span is widely credited to public health achievements, such as vaccination programs and control of infectious diseases, better safety policy such as motor-vehicle and worker safety, improved family planning, fluoridation of drinking water, and programs designed to decrease chronic diseases such as heart disease and stroke.

Meanwhile, the developing world remained plagued by largely preventable infectious diseases, exacerbated by malnutrition and poverty. Diseases such as SARS, HIV-AIDS, increase of childhood obesity and the concomitant increase in type II diabetes, the impact of adolescent pregnancy, health disasters related to the 2005 tsunami and hurricane Katrina in 2006 are having major impact on the health of the people.

One of the most important public health issues facing the world currently is HIV/AIDS. Tuberculosis is also re emerging as a major concern due to the rise of HIV/AIDS – related infections and the development of strains resistant to standard antibiotics. Another major public health concern is Type II diabetes.

**Public Health Activities:** Health Surveillance, Monitoring and Evaluation of National Health Programs, Investigation of disease outbreaks & Epidemics, designing and managing Health Promotion and Disease Prevention Programs, enabling and empowering communities to promote health and reduce inequalities, creating and sustaining intra-sectoral and inter-sectoral partnerships to improve health workforce, ensuring the effective performance of public health services to meet goals in improving health, preventing disease and reducing inequalities. In recent years, public health programs providing vaccinations have made incredible strides in promoting health, including the eradication of smallpox and the recent polio eradication, diseases that plagued mankind for years.

Today most governments recognize the importance of public health programme in reducing the incidence of disease, disability, and the effects of aging, although public health generally receives significantly less government funding compared with medicine. In recent years, public health programs providing vaccinations have made incredible strides in promoting health, including the eradication of smallpox, a disease that plagued humanity for thousands of years.

### **Why pursue a career in Public Health?**

- **Public health is an exciting and growing field-** Public Health is an emerging field of opportunities as the era has shifted from just treating a disease to controlling and preventing it in the community. The field enriches the research activities and health promotion activities.
- **Public health is a diverse and dynamic field-** Public health field is open for students from varying educational backgrounds such as Medical, Dental, Ayurveda, Pharmacy, Physiotherapy, Nursing ( BSc, MSc), Nutrition ( MSc) and Sociology (MA) .
- **Public health is a field geared towards serving Community-** The field challenges its professionals to confront complex health issues, such as improving access to health care, control and prevention of communicable and non communicable disease, and reducing environmental hazards,

violence, substance abuse, and injury by sensitizing the community. The field of public health offers great personal fulfillment working towards improving people's health and well being.

## Course Details

DURATION	INTAKE CAPACITY	ELIGIBILITY	FEES ( INR )
Two years ( full time)	20 seats per year	<ul style="list-style-type: none"> <li>• A Bachelor's degree in Medical, Dental , Ayurveda, Physiotherapy, Nursing from any statutory university in the country or abroad.</li> <li>• A Post graduate degree holder with M.Sc (Nutrition), M.Sc Nursing, M.Sc ( Home Science) Master of Social Work and MA Sociology With a minimum of 50% marks from a recognized university</li> </ul>	75,000/- per annum

## Selection Criteria

Selection of candidates will be based on merit, written test / personal interview.

## Accommodation

Candidates who are selected will be given accommodation in JSS Medical College hostels depending on the availability.

## Career Opportunities

The MPH degree will provide career opportunities for students as Program Manager, Project Coordinator, Epidemiologist, Research Assistants in

National and State Government health organizations
National Rural/ Urban Health Mission
National Health Programs
Non Government Organisations ( NGO's)
International Agencies – WHO, UNICEF etc
Public Health and Research Institutes

## SECTION - II

### REGULATIONS

#### **Eligibility for admission**

- A Bachelor's degree in Medical, Dental, Ayurveda, Physiotherapy, Nursing from any statutory university in the country or abroad.
- A Post graduate degree holder with M.Sc (Nutrition), M.Sc Nursing, M.Sc ( Home Science) Master of Social Work and MA Sociology

The degree should have been obtained from an university recognized by UGC, established by law in India and the medium of instruction for the degree should be English. A candidate who has scored a minimum of 50% of the marks in the qualifying examination will be eligible for admission to the MPH Course.

#### **Duration of the Course**

The study duration of the course including submission of dissertation on the topic registered is for two years (full time) from the commencement of the academic year ( August ).

MPH program is an yearly program that includes MPH I and II each extending for twelve months from the commencement of academic year. At the end of MPH I, there will be a university examination. At the end of MPH II, there will be a final university examination.

Each candidate should submit a **Synopsis** of their dissertation topic six months (February) prior to their first year University examination and their **Dissertation** three months (May) prior to second year University examination.

#### **Requirement to Complete the Course:**

MPH I	+	MPH II	+	Dissertation	=	MPH Degree
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## **Subjects for MPH I**

Paper I	Concepts of Health & General Epidemiology
Paper II	Epidemiology and Control of Communicable & Non-Communicable Diseases
Paper III	Research Methods & Bio-Ethics
Paper IV	Occupational and Environmental Health
Paper V	Biostatistics

## **Subjects for MPH II**

Paper I	Health Care Delivery System & Health Education
Paper II	Maternal and Child Health
Paper III	Planning & Management in Public Health & Health Economics
Paper IV	Public Health Laws & Health Information System
Paper V	Nutrition and Demography & Family Planning

## **Elective Subjects**

ES Paper I	Human Resource Management in Public Health
ES Paper II	Medical Sociology

## **Learning activities**

A candidate pursuing the MPH degree will work in the institution as a full time student. No candidate will be permitted to run a clinic/ laboratory/ nursing home while studying. Each year will be considered as a unit for the purpose of calculating the attendance.

Every candidate will take part in seminars, group discussions, journal review meetings etc. Every student will attend teaching and learning activities during each year as prescribed by the department and not absent himself/ herself from work without valid reasons

**Subject Seminar:** Recommended once a week. Every candidate will present a seminar on the selected topics at least four times a year and have a total of eight seminars in two years. The presentations would be evaluated using the check list. A time table with the topics and the name of the students and the moderator will be scheduled at the beginning of each month. All the MPH students are expected to attend and actively participate in the seminar.

**Journal club:** All first year MPH candidates must make a critical appraisal of published articles from the peer reviewed journals, at least two times a year.

**Field Visits:** Anganwadi, Primary Health Center, District Health Office, JSS Hospital, water treatment plant, Non Government Organisation & other places of Public health importance.

**Field Activities:** School Health Program, Health Education talks and rallies, Nutrition survey, Family Health Advisory survey and Pulse Polio Monitoring.

**Postings:** Primary Health Center, Subcenter, NGO's.

**Log book:** A log book needs to be maintained by each MPH student. All the activities such as theory and practical classes attended, seminars & journal clubs presented and attended, field visits and activities, spotters and lab experiments conducted, surveys conducted, school health program attended, postings



attended, Conferences/CMEs/Worshops attended and oral/poster presentations done should be entered in the same. The work dairy/log book will be certified by the Head of the department and the Head of the Institution and presented to the university during practical examination.

## **Attendance**

A candidate who has put in a minimum of 80% of attendance in a year will be permitted to appear for the university examinations.

Dissertations submitted by the candidate will be accepted only if he/she has put in a minimum of 80% of attendance in MPH I & II.

## **Dissertation**

Synopsis: Every candidate will submit a synopsis of the intended project work through the proper channel (Guide, Head of the department and Head of the Institution) to Registrar of the JSS university six months (February) prior to their first year University examination.

Such synopsis will be reviewed and the dissertation topic will be registered by the university. No change in the dissertation topic will be made without prior approval of the university.

Every candidate pursuing MPH course is required to carry out work on a selected research project under the guidance of a recognized guide. The results of such work will be submitted in the form of a Dissertation three months (May) prior to second year University examination

The dissertation is aimed to train the student in research methodology. It includes identification of the problem, formulation of a hypothesis, review of literature, designing of research study, collection of data, comparison of results and drawing conclusions.

Dissertation will require approval of the Institutional Ethical Committee (IEC) prior to initiation of any dissertation work. Student will work under the Supervisor to obtain IEC approval.

**The dissertation should be written under the following headings:**

- Abstract
- Introduction
- Objectives of Study
- Review of Literature
- Material and Methods
- Results – including tables & graphs
- Discussion
- Conclusion
- Recommendations
- Summary
- References
- Annexures: questionnaire, photos etc..

The written text of dissertation will be not less than 50 pages and will not exceed 150 pages excluding reference, tables, questionnaires and other Annexures. It should be neatly typed with double line spacing on one side of the bond paper (A4 size, 8.27” x 11.69”) and be bound properly. Spiral binding is not permitted. The dissertation will be certified by the guide and co-guide if any, Head of the Department and Head of the Institution. The dissertation will be valued by examiners appointed by the University.

A guide will be a full time post graduate teacher of a constituent college of JSS University and recognized by JSS University as a guide for supervision of dissertation work. The Co-Guide will be a postgraduate teacher recognized by JSS University as guide.

Change of Guide: Guide may be changed with prior permission from the university.

Submission of Dissertation: Two copies of the dissertation duly certified by the Guide, Head of the Department and Head of Institute will be submitted to the Registrar (Evaluation), JSS University, through the Head of the Department at least three months before University Examination of MPH II.

## SECTION – III

### SCHEME OF EXAMINATION

There will be an examination for MPH I at the end of first year and for MPH II at the end of second year.

#### **Internal Assessment**

There will be a minimum of three Internal Assessment (IA) in each subject conducted by the college at regular intervals in theory and practical. The average of the marks obtained in the best two internal assessment will be considered as University Internal Assessment marks.

#### MPH I

##### **Theory**

Written examination : 40 Marks

The marks obtained will be calculated for 20.

##### **Practical 1**

Bio-Statistics : 10 Marks

Epidemiological Exercise : 10 Marks

**Total : 20 marks**

The marks obtained will be calculated for 10.

##### **Practical 2**

Critical Appraisal Exercise : 20 Marks

Spotters : 10 Marks

**Total : 30 Marks**

The marks obtained will be calculated for 10.

#### MPH II

##### **Theory**

Written examination : 40 Marks

The marks obtained will be calculated for 20.

##### **Practical 1**

Public health chemistry : 25 marks

The marks obtained will be calculated for 10.

##### **Practical 2**

Public health Exercise : 25 Marks

The marks obtained will be calculated for 10.

## University Examinations

### MPH I

**Theory:** There will be 5 theory papers. Each theory paper will be of 3 hours duration carrying 80 marks each.

**Practical:** There will be two practical exercises. The duration of each practical exercise will be of two hours.

**Viva – voce:** Each student will give viva-voce for all the 5 subjects in one session.

### MPH II

**Theory:** There will be five compulsory subjects and two elective subjects. Any one can be opted out of the two elective subjects. University examination will be conducted for five compulsory subjects. Each subject will have a written examination of three hours duration carrying 80 marks each. Examination for elective subjects will be conducted by the department of Public Health.

**Practical:** There will be four practical exercises. The duration of each practical examination will be of one hour.

**Viva – voce:** Each student will give viva-voce examination for all five subjects in one session.

**SCHEME OF UNIVERSITY EXAMINATION FOR MPH I & MPH II**  
**MPH I Theory**

<b>Paper No</b>	<b>Paper</b>	<b>Max. Int.Assmt Marks</b>	<b>Max. University Marks</b>	<b>Total Maximum Marks</b>	<b>Minimum Marks to Pass</b>
Paper- I	Concepts of Health & General Epidemiology	20	80	100	50
Paper- II	Epidemiology and Control of Communicable & Non-Communicable Diseases	20	80 ( 40+40)	100	50
Paper- III	Research Methods & Bio-Ethics	20	80 ( 60+20)	100	50
Paper- IV	Occupational and Environmental Health	20	80 ( 40+40)	100	50
Paper- V	Biostatistics	20	80	100	50

**MPH I Practical**

<b>Practical No</b>	<b>Practical</b>	<b>Max. Int.Assmt Marks</b>	<b>Max. University Marks</b>	<b>Maximum Marks</b>	<b>Minimum Marks to Pass</b>
Exercise - 1	1. Biostatistics Exercise 2. Epidemiological Exercise	10	40	50	25
Exercise - 2	Spotters, Critical Appraisal of journal article and Viva Voce	10	(10+ 20 + 10)	50	25

## MPH II Theory

### Compulsory Subjects

Paper No	Paper	Max. Sessional Marks	Max. University Marks	Total Maximum Marks	Minimum Marks to Pass
Paper- I	Health Care Delivery System & Health Education	20	80 ( 40+40)	100	50
Paper- II	Maternal and Child Health	20	80	100	50
Paper- III	Planning & Management in Public Health & Health economics	20	80 ( 60+20)	100	50
Paper- IV	Public Health Laws & Health Information Systems	20	80 ( 50+30)	100	50
Paper- V	Nutrition and Demography & Family Planning	20	80 ( 30+50)	100	50

### Elective Subjects

Paper No	Paper	Max. Sessional Marks	Max. marks at College Exam	Maximum Marks	Minimum Marks to Pass
Elective – I	Human Resource Management in Public Health	50	50	100	50
Elective – II	Medical Sociology	50	50	100	50

**Note:** Elective subjects will have only college examination in which the student has to obtain at least 50% marks to appear for University Examination of MPH- II.

## **MPH II Practical**

<b>Practical No.</b>	<b>Practical</b>	<b>Max. Int.Assmt Marks</b>	<b>Max. University Marks</b>	<b>Maximum Marks</b>	<b>Minimum Marks to Pass</b>
Exercise - 1	Public health chemistry	10	40	50	25
Exercise - 2	Public health Exercise	10	40	50	25
Exercise - 3	Defense of Dissertation	-	50	50	25
Exercise - 4	Viva voce	-	50	50	25

### **Eligibility for Examiners**

Any faculty with Post Graduate qualification (MD P&SM/Community Medicine) with a minimum cadre of Asso. Professor of Community Medicine in a Medical College are eligible to become examiners.

### **Number of Examiners**

Minimum of two examiners will be evaluating the students. One internal examiner and one external examiner from different university/state.

### **Dissertation Valuation**

Evaluation should be done by eligible examiners outside the JSS University. If Dental topic taken, evaluation is done from the faculty of Community Dentistry. The dissertation, viva-voce and defense will be valued together by the examiners appointed by the university.

Viva – Voce and Defense Examinations: The viva-voce and defense examination will aim at assessing the depth of knowledge, logical reasoning, confidence and oral communication skills.

The viva-voce and defense examination will be held after the submission of dissertation. If a candidate fails to submit the dissertation on or before the date prescribed, his/her viva-voce and defense will be conducted during the subsequent university examination.

### **Criteria for Declaring Pass**

A candidate will be declared to have passed MPH if all the three conditions below are fulfilled.

If the candidate fails in Theory/Practicals, He /She will appear for the same only in the next forthcoming University examinations.

### **MPH I**

- Candidate should secure a minimum of 50% marks in each theory subject i.e. 50% aggregate of University & Internal examinations considered together.
- Candidate should secure a minimum of 50% marks in Biostatistics and Epidemiological Exercises, Critical appraisal of a Journal article and Viva-Voce separately.

### **MPH II**

- Candidate should secure a minimum of 50% marks in each theory subject i.e. 50% aggregate of University & Internal examinations considered together



- Candidate should secure a minimum of 50% marks in Public Health Lab Exercise, Public Health Chemistry, Defense of Dissertation and Viva-Voce separately.

Those candidates who fail in one or more subjects either in theory or practical will appear only in the subjects so failed, theory or practical in the subsequent examinations. Theory and practical examinations are considered as separate heads for the purpose of passing E.g. if a students fails in theory he has to appear only in theory in the subsequent examination.

Candidates who fail in MPH I examination will be permitted to continue MPH II. However, such candidate will not be permitted to appear for MPH II University Examination unless the candidate passes all theory and practical University examination of MPH I.

Class will be declared on the basis of the aggregate marks scored in MPH I and MPH II as follows

- |                                    |   |              |
|------------------------------------|---|--------------|
| 1) 75% and above                   | : | Distinction  |
| 2) 60% and above but less than 75% | : | First Class  |
| 3) 50% and above but less than 60% | : | Second Class |

The candidate will not take more than double the number of years prescribed for the course (i.e. 4 years) for passing, failing which the candidate will seek readmission.

## SECTION – IV

### COURSE CONTENTS

#### **MPH I Theory**

##### **Paper I: Concepts of Health & General Epidemiology**

Concepts of Health & Disease

Determinants of Health

Indicators of Health

Natural History of Disease and its application in planning intervention.

Dynamics of Disease Transmission

Measurement of Mortality & Morbidity

Need and uses of screening tests

Accuracy and clinical value of diagnostic and screening tests (sensitivity, specificity, & predictive values)

Epidemiological Study Design:

*Cross Sectional Studies*

*Cohort Study*

*Case Control study*

*Experimental Studies*

Uses of Epidemiological tools

Bias, Confounding factors

Association & Causation

Principal sources of epidemiological data

##### **Practical activity:**

- 1) Short epidemiological study
- 2) Planning and investigation of an epidemic of communicable diseases in a community setting.

##### **Paper II: Epidemiology And Control Of Communicable & Non –Communicable Diseases**

Definitions and scope

Surveillance

Epidemiology & control of Non Communicable Diseases:

*Cardiovascular diseases- Hypertension*

*Cancer*

*Diabetes*

*Obesity*

Stroke

Blindness

Mental health

Accidents

Disabilities

Epidemiology & control of communicable diseases:

*Focusing on patterns of transmissions, risk factors, preventions and control of HIV /AIDS, STD, Leprosy.*

Epidemiology and control of Vector borne diseases: *KFD, Malaria, Filarial, Plague, Yellow fever, Dengue, Chikungunya, Kala Azar, Japanese Encephalitis*

Epidemiology and control of vaccine preventable diseases:

*Tuberculosis, Diphtheria ,Whooping cough, Measles, Tetanus, Poliomyelitis*

*Worm Infestation and Health.*

### **Paper III: Research Methods And Bio Ethics**

Quantitative and Qualitative research methods

*Overview of quantitative and qualitative research methods*

*Comparing quantitative & qualitative research methods*

*Sampling in research methods*

*Research Instruments: designing and validation of questionnaire, consent forms, standardization of instruments*

*Recruitment in qualitative research*

*Participant observation*

*Logistics of participant observation*

*Data collection in quantitative and qualitative research*

In depth interview

*Logistics of interviewing*

*Interview steps and tips for taking Interview notes*

Focus group Discussion

*Logistics of focus group discussion*

*Skills of effective moderator and note taker*

*Steps in focus group note taking*

*Steps in moderating a focus groups*

Operational Research

### **Bio ethics**

General principle on ethical consideration involving human participants

Ethical guidelines in qualitative research

International conference on harmonization

Good Clinical Practice guidelines

## **Paper IV: Occupational & Environmental Health**

### **Occupational Health**

Occupational Hazards- scope and prevention

*Pneumoconiosis*

*Lead Poisoning*

*Occupation Cancers*

*Occupational Dermatitis*

Occupational Hazards of Agricultural Workers

Accidents in Industry

Sickness Absenteeism

Ergonomics

Problems of Urbanization & Industrialization

### **Environment and Health**

Water and Health

Air Pollution

Noise Pollution

Ventilation and Lighting

Housing and Health

Waste disposal –Solid and Liquid

Radiation

Hospital waste management

Nuclear hazards

Disaster management

Climate change, Global warming, Acid rain, Ozone layer depletion

Environment Protection Act

Human Population and Environment

## **Paper V: Basics of Biostatistics**

Introduction to Biostatistics

Application of Statistics in Clinical and Public Health Settings

Data Collection and Presentation - Tables and Graphs

Classification of Data

Sampling Designs

Measures of Central Tendency

Measures of Dispersion

Measures of Kurtosis and skewness

Probability and Probability Distribution  
Binomial, Poisson and Normal Distribution  
Estimation of Parameters  
Testing of Hypothesis:  
    Parametric Tests  
    Z test, T test  
    Analysis of variance – One way & Two way  
    Non Parametric Tests  
Correlation Analysis  
Regression Analysis  
    Simple Regression  
    Multiple Regression  
    Logistic Regression

## **MPH I Practical**

### **Session 1 Biostatistics & Epidemiology**

Biostatistics Exercises  
Epidemiological Exercises  
Introduction to statistical softwares  
Data entry  
Organizing and Analysis of data using Epi Info

### **Session 2 Critical Appraisal**

Critical appraisal of published articles

### **Session 3 Spotters related to public health**

### **Dissertation**

Selection of topic, Review of literature and Synopsis submission

## **MPH II Theory**

### **Paper I: Health Care Delivery System and Health Education**

History of Public Health

*History of different systems of Medicine*

*Public health events - Sanitary awakening, Germ theory of disease, Rise of Public Health in various countries*

Health Care Delivery System in Developed & Developing Countries

Health situation in India:

*Demography, mortality and morbidity profile and the existing health services.*

Health Care Delivery System in India

*Organization*

*Administration*

*Delivery*

*Challenges*

*Quality assurance*

*Health Care Delivery by NGO's*

*Challenges*

Primary Health Care Approach in Health Care Delivery

Factors influencing the Health Care Delivery System

National Health Programs

*National Rural Health Mission*

*National Vector Borne Disease Control Programme*

*Reproductive And Child Health Programme*

*National AIDS Control Program*

*Revised National Tuberculosis Control Programme*

*National Leprosy Eradication Programme*

*National Program for Control Of Blindness*

*National Programme For Prevention And Control Of Cancer, Diabetes, Cardiovascular Diseases And Stroke*

*Integrated Management Of Neonatal And Childhood Illness*

Evaluation of Health Services

Socio Economic Status Scales and their implications

Health Communication

*Approach*

*Models*

*Contents*

*Principles*

*Practice*

**Practical activity:** Monthly Postings to Primary Health Center and Sub Center with assignments

## **Paper II: Maternal and Child Health**

Health Status of Women in General and Reproductive Health  
Determinants of Maternal and Child Health  
Health problems of women across the life span  
Life cycle approach for women's health  
Indicators of MCH care  
Maternal Mortality: *Causes, Preventive and control measures*  
Health of the Newborn: *Neonatal mortality*  
Growth and Development of the child  
Health problems of Under 5 children, school going children & Adolescents  
*School Health Services*  
Child health in special circumstances  
*Handicapped*  
*Juvenile Delinquency*  
*Child labor and child exploitation*  
*Child trafficking*  
Family Planning: *Scope*  
*Contraceptive methods*  
*Family Welfare Program*

## **Paper III: Planning & Management in Public Health & Health Economics**

Introduction to Planning & Management  
Objectives in Planning & Management  
Organizational Structure  
Planning Cycle  
Organizational Concept  
Organizational Behavior  
Modern Management Techniques  
Human Resource Management  
Financial Management:  
    *Cost Benefit Analysis*  
    *Cost Effective analysis*  
    *Zero Based Budgeting*  
    *Performance Based Budgeting*  
Network analysis: *PERT, CPM*  
Logistic Management  
Basic steps in Monitoring & Evaluation  
Evaluation of National Health Programs  
Community Need Assessment  
Basic steps in Policy Proposal

National Health Policy  
National Population Policy  
Public Health Declarations  
    *Jakarta Health Declaration*  
    *Ottawa Charter*  
    *Alma-Ata Declaration*  
Social marketing  
Medical audit  
Social audit – Performance Appraisal  
Health Insurance

**Practical Activity:** Evaluating a National Health Program and services at PHC level

## **Paper IV: Public Health Laws & Health Information Systems**

### **Public Health Laws**

Legislation related to Census, Birth and Death  
Legislation related to Tobacco and Drug Control  
The Transplantation of Human Organs Act 1994  
Legislation for Women Empowerment and Health  
Legislation for Child Protection and Health  
Legislation related to the Welfare and Rehabilitation of Disadvantaged  
Occupational Health Legislations  
Environment Health Legislations  
International Health Regulations  
Information Management in Public Health  
Food safety and Protection Act  
Consumer Protection Act.

## **Paper V: Public health Nutrition and Demography & Family Planning**

### **Public Health Nutrition**

Nutritional problems in India  
Role of nutrition in Health and Disease.  
Common sources of various nutrients and special nutritional requirement according to age, sex, activity, physiological conditions.  
Common nutritional disorders: *Protein Energy Malnutrition, Vitamin A deficiency, anemia, iodine deficiency disorders, fluorosis and their control and management.*  
Methods for assessing nutritional status of community  
National Nutritional Policy  
National programs in nutrition and their evaluation



Food: *Toxins, Adulteration, Enrichment, Fortification*  
Food hygiene, milk and meat hygiene, food poisoning  
Planning, implementation and evaluation of nutritional services

## **Demography**

Definition of demography and its relation to Community Health.  
Stages of the demographic cycle and their impact on population.  
Age pyramid, Sex ratio, Dependency ratio, Density of population, Life expectancy  
Demographic transition  
Fertility & fertility indicators  
Population projections and Dynamics  
Need for population control measures and the National Population Policy.

## **Elective subjects**

### **MPH II ES1: Human Resource Management in Public Health**

Introduction and objectives  
Human Resource Development (HRD)  
Obtaining suitable human resource  
Effective employment and development  
Communicating with people  
Motivating self and staff  
Leading and supervising the staff  
Building a Health Team

### **MPH II ES 2: Medical Sociology**

Family – definition, types, role in health and disease  
Community  
Socio-cultural practices influencing health  
Acculturation  
Social pathology, Social security, Social assistance  
Socioeconomic status scales  
Role of Medico Social Worker

### **MPH – II Practical**

**Session 1** Public Health Chemistry

**Session 2** Public Health Exercises

### **Dissertation**

Data Collection, Analysis, writing and submission of Dissertation, publication of research findings (at least one publication in a peer reviewed journal)

## References

1. Park's Textbook of Preventive and Social Medicine by K.Park
2. Public Health and Preventive Medicine (Maxcy-Rosenau-Last Public Health and Preventive Medicine) by Robert B. Wallace
3. Basic Epidemiology. R Bonita, R Beaglehole, T Kjellstrom. World Health Organization Geneva.
4. Epidemiology by Leon Gordis.
5. Oxford Textbook of Public Health by Holland W, Detel R, Know G.
6. Essentials of Preventive medicine by Ghai OP
7. Practical Epidemiology by D.J.P Barker
8. Preventive and Community Medicine : Clark & MacMahon
9. Medical Statistics: Principles and Methods by Sundaram, S N Dwivedi, V Sreenivas
10. Elements of Health Statistics by N S N Rao
11. An Introduction of Biostatistics by Sunder Rao P S S
12. Epidemiology, Principles and Methods by B. MacMahon, D. Trichopoulos
13. Hunter's Diseases of Occupations by Donald Hunter, PAB Raffle, PH Adams, Peter J. Baxter, WR Lee.
14. Sathe PV and Sath AP Epidemiology and Management for Health Care for All.
15. Text book of Public Health and Community Medicine by Rajvir Bhalwar, AFMC.
16. Community Medicine and its Recent Advances by AH Suryakanth
17. Text Book of Preventive and Social Medicine by Sunderlal
18. National Health Program by Jugal Kishore
19. Recent Advances in Occupational Health by Harrington
20. All reports and documents related to National Programmes from the Ministry of Health and Family Welfare- Government of India.
21. Text book of Sociology by Dr. Vidyabhushan.
22. Module 1: Health care delivery system in India by National Institute of Health and Family Welfare. New Delhi.
23. Module 4 : Human Resource Management. National Institute of Health and Family Welfare. New Delhi.

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