

Master of Public Health

Syllabus - First Semester

DEMOGRAPHY

Course Code: PUH4101

Credit Units: 03

Course Objective:

To present students some basic techniques and concepts in population sciences

Course Contents

Module-I: Population Fundamentals

Science of demography, Demographic cycle, Population trends and demographic indicators,

Module-II: Demographic Studies

Fundamentals of population studies and its links with health

Methods of demographic data collection, sources of data, population census, population composition, world population growth, growth of Indian population, morbidity, mortality, ageing, migration/urbanization

Module-III: Family Planning

Fertility and fertility factors, Family planning, Eligible & Target Couples, Contraceptive Methods, National Population Policy.

Examination Scheme:

Components	P	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References:

- Asha Bhende and Tara Kanitkar. *Principles of population Studies*, Himalaya Pub Houses,
- John Weeks, *Population*, Wordsworth pub, 1994.
- S.N.Singh, M.K.Premi, P.S.Bhatia. *Population Transition In India*, B. R. Publishing Corporation.
- P.B. Desai. *Population in the context of India's development*, UGC – UNFPA project.
- Peter Cox. *Demography*, Cambridge University Press
- K.B. Pathak, F. Ram. *Techniques of Demographic Analysis*, Himalaya Publishing Houses.
- *Health Monitor*, Foundation for Research in Health S.
- International Institute for Population Sciences. *National Family Health Survey – 1, 2 and 3*, Mumbai.
- K. Srinivasan. *Basic graphic Techniques and Applications*, Sage Publications, 1998

HEALTHCARE DELIVERY SYSTEM & POLICIES

Course Code: PUH4104

Credit Units: 03

Course Objective:

To provide the students a basic insight into the main features of Indian health care delivery system and how it compares with the other systems of the world.

Course Contents:

Module-I: Health and Development

Concept of Health and Disease. Spectrum of health.
Health and its determinants Health Indicators.

Module-II: Healthcare Systems

Evolution of Health Planning in India, Concept and Elements of Primary Health Care, Rural Healthcare system in India – Structure & Current Scenario, Indian Public Health Standards, Organization and Management of Public Healthcare System, Issues in healthcare delivery system,

Module-III: Health Policies and Schemes

Millennium development goals, National Health Policy, Five year Plans,

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References:

- K Park, *Preventive and Social Medicine*, Bansaridas Bhanot Publishing House.
- Brijesh C Purohit. *Health Care System in India: Towards Measuring Efficiency in Delivery of Services*
- Maxcy-Rosenau-Last, *Public Health & Preventive Medicine*, 14th Edition Ed Robert Wallace

HEALTH ECONOMICS

Course Code: PUH4105

Credit Units: 02

Course Objective: To study principles of economics and its application in Hospitals.

Course Contents:

Module-I: Nature and scope of Economics

Fundamental Concepts – Scarcity & Choice, Macroeconomics & Microeconomics, Economic Agents Consumer, Producer & government, Market – Free market mechanism and chained Market Mechanism.

Module-II: Healthcare Market

Demand for Healthcare: Need, Want & demand, Healthcare as an investment, Determinants of demand – Price factors (opportunity cost), Patient factors & Physician factors – Supplier Induced Demand; Insurance and demand for healthcare.

Module-III: Costs

Classification of costs on the basis of traceability, cost behavior, controllability and selection among alternatives; Total, Average and Marginal costs.

Module-IV: Health Expenditure

Public Expenditure on Health, Expenditure and Allocations under Five-Year Plans, its SWOT analysis, National Health Accounts.

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References:

- Ceri J Phillips. *Health Economics- An introduction for health professionals*, Blackwell publishing.
- Clewer Ann and D Perkins. *Economics for healthcare management*, Prentice Hall.
- Folland S, A.C. Goodman, and M. Stano, *The economics of health & Healthcare*, Prentice Hall
- *Principles of Health Economics for developing countries*, The World bank.

BIOSTATISTICS

Course Code: PUH4106

Credit Units: 03

Course Objective: The aim of this course is to develop the understanding of various statistical tools used for decisions making and how each applies to and can be used in the Hospital environment.

Course Contents:

Module-I: Introduction

Classification of data, Source of data, data organization Method of scaling - nominal, ordinal, ratio and interval scale, building composite scales, measuring reliability and validity of scales.

Module-II: Properties of measurement & Probability distributions

- Measurement of central tendency, measurement of dispersion – Range, Mean deviation & Standard deviation.
- Concepts of probability, Probability distributions – Binomial, Poisson & Normal Probability Distribution.

Module-III: Testing Hypothesis

Hypothesis Testing to compare two populations – Student's T-test, Interpretation of computer output of ANOVA, Chi – Square Test, F-test.

Module-IV: Statistical methods and application:

SPSS processing, Transformation and manipulation of SPSS file, Statistical procedures-descriptive, univariate, bivariate and multivariate statistics.

Examination Scheme:

Components	CP/P	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References:

- B.K. Mahajan. *Methods in Biostatistics*, Jaypee Brothers
- P.S.S. Sundar Rao. *An Introduction to Biostatistics: A manual for students in Health Sciences*, J.Richard Prentice Hall, 1996.
- Daniel, Wayne.W. *Bio-Statistics: A foundation for Analysis in the Health Sciences*, John Wiley and Sons Pub, 1991.
- K. Vishwas Rao. *Bio-Statistics: A Manual of statistical methods for use in the Health, Nutrition and Anthropology*, Jaypee Brothers Medical Pub, 1996.
- Verma B.L., Shukla G.D. *Bio-Statistics perspective in Health care research and practice*, C.B.S. Pub, 1993.
- Krishnaiah, P.K. Rao, C.R. (ed), *Handbook of Statistics*, Elsevier Science Pub, 1988.

FIELD VISIT (PRACTICAL)

Course Code: PUH4108

Credit Units: 2

Course Objectives:

Community visits & Field Visits are the actual learning place for a student of Public Health. During these visits students will get a real time experience of class room teachings & will get an opportunity of hands on experience

Field Visits:

- Village Tour to study the environment of Indian Village, study the various health hazards,
- Acquire knowledge about the health resources of the community
- Asses the felt & non felt needs of community and make a Community diagnosis
- Collection of the vital data of the village
- Family Survey- Methodology & components
- Preparation of family health records

Examination Scheme:

Components	CP/P	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Syllabus - Second Semester

APPLIED EPIDEMIOLOGY

Course Code: PUH4201

Credit Units: 03

Course Objective

To furnish the students with knowledge and skills regarding general principles of clinical trials research including regulatory, ethical principles & guidelines and theoretical idea about the design conduct and analysis of clinical trials

Course Contents

Module-I: Epidemiological Methods & Screening for disease.

Sources of epidemiological data, concepts of screening, criteria for screening, sensitivity and specificity, disease surveillance, techniques for randomization, adverse events, investigation of an epidemic and role of a healthcare facility in its control.

Module-II: Epidemiology and Public Health

Epidemiology and Public Health, different epidemiological perspectives, use of epidemiological tools for health planning and making a community diagnosis,

Module-III: Epidemiological Tools

Epidemiological tools for monitoring and evaluation of health programmes, epidemiological considerations in development of management information systems, epidemiological basis for formulation of health interventions, interpretation of published epidemiological studies.

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References

- Barkar, D.J.P., *Practical Epidemiology* : Churchill pub, 1982.
- E.A. Knox (ed). *Epidemiology in health care planning*, Oxford University Press, 1979.
- PV Sathe & AP Sathe. *Epidemiology & Management for Healthcare for all*.
- Aschengrau and Seage: *Essentials of Epidemiology in Public Health*
- Friis Robert: *Epidemiology for Public Health Practice*, Third Edition
- Szklo Moyses: *Epidemiology: Beyond the Basics*

COMMUNICABLE & NON-COMMUNICABLE DISEASES

Course Code: PUH4203

Credit Units: 04

Course Objective

To provide students with an understanding of the scope of the public health issues with regard to communicable diseases and non-communicable diseases in India and also provide them the overview with the national health programs that have been designed to address these issues.

Course Contents

Module-I: Introduction

Classification of diseases, modes of evolution of disease stages, burden of communicable & and non-communicable diseases, disease cycle/ transmission

Module-II: Communicable diseases

Vaccine preventable diseases, respiratory, intestinal, contact and vector borne diseases

Module-III: Non-communicable diseases

Asthma, Cancer, Cardiovascular diseases, chronic rheumatic diseases, diabetes, substance abuse related illness & control, obesity, mental health, and Accident & Injuries.

Module-IV: Disease Control Programmes

National Malaria Eradication Programme, Revised National Tuberculosis Control Programme, National Leprosy Eradication Programme, Vector Borne Disease Control Programme, Guinea worm Eradication Programme, National Iodine Deficiency Disorder Control Programme, Diarrheal Diseases Control Programme, National Blindness Control Programme, STD Control Programme, National AIDS Control Programme, National Cancer Control Programme, National Diabetes Control Programme, National surveillance Programme for Communicable diseases.

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References:

- Utpal Kant Singh. *Infectious diseases and immunization.*
- WHO report on *infectious diseases and report on multi-drug resistance.*
- Griesecke J. *Modern infectious disease epidemiology*
- Duguid et al. *Textbook of Medical microbiology.*
- Davidson, Edward, Bouchier et. Al. *Principles and practice of Medicine*, Pearson Professional Ltd., 1995.
- Harrison's *Principles of Internal Medicine* 16th Edition 2005
- WHO Technical publications: *Vaccines, Human Genetics Program series*

RESEARCH METHODOLOGY

Course Code: PUH4205

Credit Units: 03

Course Objectives:

- To provide basic understanding towards research principles and methods.
- To introduce important analytical tools for research data analysis.
- To assist in the development of research proposals/reports.

Course Contents:

Module-I: Basics of Research

Definitions & uses of research in healthcare, Steps Involved in Research Process, Variables in research, Measurement scales, Formulation of research problems, writing research questions, Development of conceptual framework.

Module-II: Sampling & Research Designs

Sampling, Sampling Procedure, Various types of Sampling Techniques, Sample size determination, reliability & validity in research, Research Designs- Non-experimental & experimental research designs.

Module-III: Review of Literature & Hypothesis

Review of literature, Hypothesis- Meaning and types of hypothesis, Hypothesis testing, Type I & Type II errors in hypothesis testing.

Module-IV: Data Collection

Types of Data: Secondary and Primary, Different methods of data collection- Observation method, interview method, Questionnaire and schedule, Data Management: editing, entry and preparing data sets for analysis; Design and development of questionnaire.

Module-V: Research Reports

Structure and Components of Research Report, Types of Reports, Layout of Research Report, Method of writing a research report.

Module-VI: Research Ethics & Reference Writing

History of ethics in health research, Principles and Concepts in research ethics – confidentiality and privacy, informed consent, vulnerable subjects and special treatments, standards of care – principles, review processes etc.; Vancouver style of reference writing.

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References

- Gummerrson, E. *Qualitative methods in Management Research*, Sage publications
- Verkevieser et al, *Designing and conducting Health Systems Research Projects* WHO and IDRC
- Grundy F and Reinke W A, *Health Practice Research and formalize Managerial Methods*, Geneva, WHO
- *Designing and conducting Health surveys*, Jossey Bass Publishers.

NATIONAL HEALTH PROGRAMMES

Course Code: PUH4206

Credit Units: 03

Course Objective

To give an idea about the background objectives, action plan, targets, operations, achievements and constraints of various National Health Programmes

Course Contents

Module-I: Introduction

Brief outline of health situation in India, Organization network for health and family welfare services at the centre, state, district and block level.

Module-II: Key Health programmes in India - 1

National Rural Health Mission, Reproductive Child Health, and National Urban Health Mission.

Module-III: Key Health programmes in India - 2

Family Planning Programme, Universal Immunization Programme, Child Survival and Safe Motherhood Programme, Integrated Child Development Scheme, Water supply and Sanitation programme.

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References

- GOI 2005, National Rural Health Mission: Meeting People's Health needs in rural areas, Framework for implementation, 2005-2012, MoHFW.
- GOI 2005, Report of National Commission on Macroeconomics and Health, MoHFW.
- GOI, MoHFW, Annual Report of various years.
- National Health Programmes of India by J Kishore

FIELD VISIT (PRACTICAL)

Course Code: PUH4207

Credit Units: 2

Course Objectives:

Community visits & Field Visits are the actual learning place for a student of Public Health. During these visits students will get a real time experience of class room teachings & will get an opportunity of hands on experience

Field Visits:

Visit various Health facilities & Institutions in the are-
Anganwari,
Sub-centre,
Primary Health Centre &
Community Health Centre.

Visit to water treatment Plant

Visit to sewage treatment plant

Carry out Village Health Survey

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Syllabus - Third Semester

SUMMER INTERNSHIP EVALUATION

Course Code: PUH4335

Credits Units: 06

Training Objective: To expose the student to various programmes/ activities in health sector and develop a comprehensive understanding of programme design, strategies and planned intervention.

Duration: 2 months

Format for Report Writing

1. Abstract
2. Introduction
3. Aims & Objectives
4. Operational definitions
5. Significance of Study
6. Review of literature
7. Research methodology
8. Data Analysis
9. Results
10. Discussion
11. Conclusion
12. Recommendations
13. Limitations of study
14. Future prospects of study
15. References

Guidelines for presentation-

- Power point presentation
- Time for presentation: 20 minutes
- Time for discussion: 10 minutes

Examination Scheme

Components	Presentation	Report submitted	Viva-voce
Weightage (%)	25	50	25

WOMEN & CHILD HEALTH

Course Code: PUH4304

Credit Units: 03

Course Objective

To impart an understanding of the scope of women and child health and to enable students to find and interpret relevant information on women and child health.

Course Contents

Module-I: Women's Health

Concepts, definition and measures; customs, norms, attitudes and practices pertaining to various aspects of women's health including menstruation, puberty, childbirth and menopause; sexual and reproductive rights, infertility.

Module-II: Adolescent Sexual Health & Family Planning

Adolescent sexual health & contraception: role and involvement of men in reproductive health, methods of family planning, contraception behavior, measurement and service delivery, quality of family planning care

Module-III: Women's Health status in India

Gender, autonomy, empowerment and status of women, domestic violence in India, maternal mortality and morbidity, abortion, HIV, STIs.

Module-IV: Child Health

Growth and development from infancy to childhood; Child health & morbidity; neonatal, infant & child mortality; IMR & U5MR; breastfeeding, weaning & supplementary feeding

Module-V: Child Health Initiatives in India

Programmes and policies related to child health and development, health of physically and mentally challenged children, behavioral disorders, child abuse.

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References:

- Dutta DC 2005. *Textbook of Obstetric and Gynaecology*, Rawat Pub.
- Gupta SD 2005. *Adolescent and Youth reproductive health in India*.
- Jejeebhoy S. 1998. *Adolescent sexual and reproductive health in India: review of the evidence from India*. Social science and medicine; 46-10.
- Lancet Series on *Child Survival 2003 and Neonatal Health care 2005*

HEALTH PROMOTION & BEHAVIOUR CHANGE COMMUNICATION

Course Code: PUH4306

Credit Units: 02

Course Objective:

To introduce different models of communication for use in health promotion activities and community based activities.

Course Contents

Module I: Basics of Communication

Communication Process, Function and Types, Barriers to communication, Mass Communication, Communication Skills, Community Participation: Concepts and Types

Module II: Health Communication & its functions

Concepts & approach of Health Education & Promotion, Models & contents of health education, Practice of Health education – Audio-visual aids, Process of curriculum development, Types of evaluation and evaluation methods.

Module III: Information, Education and Communication:

- IEC in Health and Family Welfare
- IEC structure in districts
- Innovative strategies and evaluation

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References

- Ahmed Manzoor. *Community Participation: The Heart of Primary Health Care*, International council for education, Essex.
- Bhat Anil. *Community-involvement in Primary Health Care*, Public systems group, IIM.
- *Behaviour Change through Mass communication*, AIDS control and prevention Project, Family Health International, USAID.

FIELD VISIT (PRACTICAL)

Course Code: PUH4307

Credit Units: 2

Course Objectives:

Community visits & Field Visits are the actual learning place for a student of Public Health. During these visits students will get a real time experience of class room teachings & will get an opportunity of hands on experience

Field visits:

- Organization of Health camp, mela & exhibition
- Visit to school- study school health & mid day meal program
- Prepare & deliver health Talks in community
- Family visits
- Nutrition assessment of family
- Industrial visit for occupational Health perspective
- Visit various NGO's

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Syllabus - Fourth Semester

DISASTER MANAGEMENT

Course Code: PUH4403

Credit Units: 02

Course Objective

- To learn, identify and assess disasters in the community.
- To set-forth policies and procedures for disaster preparedness and to prepare disaster plan.

Course Contents

Module-I: Basics of Disaster Management

Definitions, Determining risk of disaster, Classification of disaster on the basis of origin, source, onset & anticipated response; Disaster process, Effects of Disasters – Health issues, characteristics and geography of disasters, Impact of Disasters on the Hospitals

Module-II: Disaster Management Process

Phases of disaster management, leadership, organization of medical relief, Triaging, Disaster Response – local, national & International; Disaster Management Act – 2005.

Module-III: Disaster preparedness

Hospital Disaster Plan – its pre-requisites, principles and components; Hospital disaster management committee and its role; Hospital disaster manual.

Module-IV: Fire Safety

Grades of fire and its causes; elements of fire safety, various fire extinguishers; and fire safety training.

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	10	5	5	10	70

Text & References

- A guide to emergency health management after natural disasters, American health organization scientific publication.
- Emergency vector control after Natural disaster, American health organization scientific publication.
- District Health facilities, WHO regional publication western pacific services.
- Medical supply management after natural disaster, American health organization scientific publication.

DISSERTATION

Course Code: PUH4437

Credit Units: 15

Internship Objective:

To impart the practical knowledge through research methods, help formulate a rigorous research problem related to public health sector on the basis of their observation, help do an independent study and encourage working in a team.

Pedagogy

- Identifying several situations amenable to dissertation work, writing a proposal and making a presentation to the Dissertation faculty advisory committee.
- Reporting to the committee on the progress of research work periodically.
- Making use of a variety of research methods.
- Defending the inference before the Examining Committee.

Report Contents:

Every student will do a detailed study on the topic selected for the dissertation, and is expected to prepare a two or three proposals which he intends to take up for the Dissertation. The Assigned guide will examine this and decide on the topic of dissertation. Report will comprise of following contents:

1. Abstract
2. Introduction
3. Aims & Objectives
4. Operational definitions
5. Significance of Study
6. Review of literature
7. Research methodology
8. Data Analysis
9. Results
10. Discussion
11. Conclusion
12. Recommendations
13. Limitations of study
14. Future prospects of study
15. References

Evaluation Scheme

Components	Presentation	Report submitted	Viva-voce
Weightage (%)	25	50	25

