

# Subject: Public Health

## Part A: Public Health Theory and Practices

### 1. Objectives

At the end of the course, learners will be able to:

- a. Explain philosophical and theoretical basis of public health
- b. Describe concept of public health practice
- c. Analyze underlying causes of health disparities in the population
- d. Appreciate interdisciplinary approach in public health
- e. Discuss concept, evolution and dilemma in public health education
- f. Explain historical background of Primary Health Care and its relevance in the present context.
- g. Describe concept and relevance of International Health
- h. Explain the implication of present-day globalization in public health

### 2. Course contents

Unit 1: Overview of Public Health 10hrs

- a. Historical development of public health, future of public health
- b. Concept of public health as science and practice
- c. Sources of theories in public health
- d. Principles of public health
- e. Factors influencing public health practice
- f. Ethical dilemma in Public Health

Unit 2: Health disparities and public health 25hrs

- g. Determinants of health and disease
  - h. Cost, equity and access to public health services
  - i. Medical care and public health: systems and services
  - j. Concept of health disparity
  - k. Underlying causes of health disparity
  - l. Health disparities and vulnerable population
  - m. Opportunities and challenges in health services in relation to population health
  - n. Revitalization of primary health care
- Issues in public Health- Poverty, Non communicable diseases, natural and human made disaster and other relevant emerging issues.

Unit 3: Interdisciplinary approach in public health 10hrs

- o. Concept of Health in All Policies (HiAP)
- p. Importance of multi-sector collaboration in public health
- q. Challenges in implementation of multi-sector collaboration in public health

Unit 4: Public Health Education 15hrs

- a. Concept of public health education
- b. Current situation of public health education in Nepal
- c. Role of professional Councils in public health education
- d. Dilemma in public health education

Unit 5: Primary Health Care 10 hrs

- a. Historical background of primary health care
- b. Vision of Primary Health Care and Health for all
- c. Global experiences of success and failure of primary health care
- d. Relevance of primary health care in present day context
- e. Revitalization of PHC in Nepal
- f. Health Care Reform- Concept, reforms strategies
- g. MDGs, Beyond MDGs and Sustainable Development Goals

## Part B: Advanced Public Health

### 1. Objectives

By the end of the course, the learners will be able to

- a. describe concept of public policy and health policy development process
- b. familiarize with the public policies and health policies
- c. explain impact of public policies and laws in health
- d. critically analyze health policy and health system
- e. familiarize with evidence based public health practice
- f. review the global and national achievements in evidence based public health practice
- g. analyze the advances in public health system research
- h. carry out literature review using different retrieval methods
- i. develop knowledge and skills on systematic review, referencing by different styles using appropriate software and scientific writing

### 2. Contents

Unit 1: Public Policies and Health Policy 50 hrs

1.1 : Public policy

25hrs

- a. Concept of public policy
- b. Public policies relevant to health
- c. Health related laws
- d. Impacts of public policies and laws in public health
- e. Health in All Policies (HiAP)

1.2: Health policy 25hrs

- a. Concept of health policy
- b. Process of health policy development
- c. Key players in policy development
- d. Health policy and service delivery
- e. Political context and health policy formulation at national and international level
- f. National Health Policy 2017 (BS)
- g. Review and evaluation of health policy
- h. Contemporary policy debates
- i. State and health policy

Unit 2: Evidence-based Public Health Practice 70hrs

2.1 Introduction to Evidence based Public Health Practice 10 hrs

- a. Concept of evidence based public health practice

- b. Concept of evidence
- c. Philosophy of science - knowledge generation
- d. Domains of evidence based public health practice
- e. Principles of public health practice
- f. Theory, research and public health practice
- g. Factors affecting public health practice

## 2.2 Advances in public health system research 20 hrs

- a. Advances in public health systems research
- b. Community based participatory research
- c. Network analysis and public health practice–based research networks
- d. Global and national achievements in evidence based  
public health: Vaccine-Preventable Diseases  
Prevention and Control of Infectious  
Diseases Tobacco Control  
Maternal and  
child Health  
Nutrition and  
health Climate  
change and  
health  
Road traffic accidents and  
safety Occupational  
safety and health Cancer  
Prevention  
Cardiovascular disease and diabetes  
prevention Childhood Lead Poisoning  
Prevention  
Public Health Preparedness and  
Response Risk reduction

## 2.3 Literature review: Process of information retrieval 10 hrs

- a. Public health information and public health
- b. Concept of knowledge representation
- c. The nature of the social, behavioral, and educational sciences literature
- d. Traditional and modern retrieval models

## 2.4. Systematic review process 15 hrs

- a. Sources to search literature

- Bibliographic databases
- Journals and other non-bibliographic-database sources
- Unpublished and ongoing studies
- Institutional Repositories
- b. Designing search strategies
- c. Sensitivity versus precision
- d. Structure and components of a search strategy
- e. Free text terms and controlled vocabulary
- f. Formulating search statements
  - Using Boolean operators (AND, OR and NOT)
  - Using Proximity operators (NEAR, WITHIN and ADJ)
  - Dealing with synonyms, related terms, variant spellings, and truncation
  - Language and date restrictions
  - Using search filters vs limiting command
- g. Analysing data and undertaking meta-analyses
- h. Biases in systematic review:
  - Search bias
  - Selection bias
  - Content bias
  - Addressing reporting biases
- i. Interpreting results and drawing conclusions
- j. Critical appraisal of literature
- k. Cochrane collaboration review process

## 2.5 Writing scientific papers 15 hrs

- a. Concept of scientific writing
- b. Components and steps of scientific writing
- c. Citation and referencing, use of software in referencing
- d. Manuscript preparation for publication
- e. Plagiarism: concept, plagiarism in research, ways to avoid

# Part C: Health Promotion and Education Practices and Project Management

## 1. Objectives

At the end of the course, the learners will be able to:

1. Describe various existing practices on health promotion and education at national and international context
2. Explain the principles, concept and strategies of health promotion in community, school, workplace and hospital.
3. Critically appraise the concept and purpose of settings approach in health promotion and education
4. Apply healthy lifestyle options and issue based approach to address priority risks behaviors.
5. Describe the meaning, importance and scope of HP&E program planning
6. Explain the virtue and limitation of classical and comprehensive models and frameworks in HP&E program planning
7. Develop intervention strategies, implements, monitors and evaluates indicators using suitable framework

## 2. Contents

Unit 1: Introduction to health promotion and education practices 15 hrs

- History- change pattern, disease scenario in developed and developing world
- Paradigm shift from health education to health promotion
- Scope and prospect of health promotion and education (UN charter, PHC/HFA to recent international discourses)
- Challenges in HPE practice (Political commitment, clinical bias, inappropriate infrastructure, Less priority in budget allocation) – Annual report – Vic health, IUHPE, Thai health,
- Code of conduct in HPE practice

Unit 2: National and international experiences in HPE practices 20 hrs

- Tobacco control – Global convention – FCTC, MPOWER, Tobacco act, WNTD
- HIV/AIDS prevention and control – GFATM, Bllomberg, Billgate Melinda
- Millenium Development Goals (MDG) and beyonds
- Maternal, child and neonatal health
- Reproductive health issues \_ Safe motherhood policies and programs
- Critical review the existing health education and promotion component, activities of NHEICC, NCASC, NHTC and other national, international and bilateral organizations (SCF, USAID, DFiD, GiZ etc.) Partner organizations, academic institutions and universities
- Health Promotion Practices in selected countries

- Health Promotion in Canada, USA – Integration with other profession Medical, Nursing and its implementation modules
- Health Promotion in EU – With special focus to T/L curricula, Health Promoting School approach including global initiatives
- Health promotion in Thailand : with special focus to accreditation criteria for hospitals, schools, workplace etc.

Unit 3: Settings approach in Health Promotion and Education 20 hrs

- Definition and historical evolution of health promoting settings approach
- Ottawa Charter for Health Promotion and healthy settings strategies
- Brief overview of contextual elements of the following health promoting settings:
  - Healthy Cities
  - Healthy Villages
  - Healthy Markets
  - Health Promoting Schools
  - Health Promoting Hospitals
  - Health Promoting Workplaces
  - Health Promoting Universities
  - Health Promoting Prisons
- Planning a settings approach: Future of settings, risks and challenges
- Healthy cities approach
- Health Promoting Schools
  - Philosophy, principles, strategies and practice of Health Promoting Schools approach as compared to classical School Health Programme approach
  - Plan and develop strategies for a model health promoting school
  - Meeks Heit umbrella of Comprehensive School health Education
- Health Promoting Workplaces
  - Philosophy, principles, strategies and practice of Health Promoting Workplace approach
  - Plan and develop strategies for a model health promoting workplace
- Luxembourg Declaration on Workplace Health Promotion

Unit 4: Detail on the application of the following frameworks for health promotion program planning implementation and evaluation 55 hrs

- Critical analysis of some of the HP&E project planning implementation and evaluation frameworks
  - PRECEDE/PROCEED model
  - CHEM – Comprehensive Health Education Model
  - MHEP- Model for Health Education Planning
  - MHEPRD- model for Health Pducation Planning and Resource Development
  - CFHPPP – Comprehensive Framework for Health Promotion program Planning

- Develop a sample health promotion and education project in any one of the following areas using suitable framework
  - Healthy diets and eating behaviors
  - Tobacco-free initiative
  - Physical activity
  - Oral health promotion
  - Mental and emotional health promotion
  - Eye health promotion
  - Ear health promotion
  - Substance abuse prevention
  - Domestic violence prevention
  - injury and road traffic accident prevention
  - Stress management

Unit 5: Strategic approaches of health promotion and education 10 hrs

- Community participation, empowerment
- Leadership: type and model to address various group of community and society
- Partnership: Model, strategy,
- Social mobilization: models, strategy
- Mediation – strategic approach (stakeholders with examples from Vic health)
- Evidence based Advocacy
- Enabling (Skill development: Life skill; Healthful living skills and Income generating skill)



## Part D: Research Methods

### 1. Objectives

At the end of the course, the learners will be able to:

- a. Explain the concepts, process and steps involved in conducting health research
- b. Select suitable approaches to quantitative and qualitative data analysis
- c. Design quantitative and qualitative research
- d. Apply mixed methods in different research activities
- e. Demonstrate a critical understanding of various research methods.
- f. Reflect critically on evidence-based practice in public health issues
- g. Demonstrate knowledge and understanding of the assumptions of the research approaches that are commonly used in public health and other relevant areas.
- h. Demonstrate skills in processing, interpretation and use of data
- i. Develop a research proposal on a selected health problem

### 2. Course contents

Unit 1: Theoretical orientation on research methodology 20hrs

- a. Research paradigm and knowledge generation
- b. Research problems
- c. Research objectives
- d. Research framework
- e. Research design
- f. Rationale of research
- g. Literature review
- h. Ethics and research

Unit 2: Process of research 10 hrs

- a. Identifying research problems
- b. Setting research objectives
- c. Deciding research design
- d. Literature search and review
- e. Data collection – Techniques, tools and process
- f. Data analysis – management and analysis process
- g. Validity and reliability

Unit 3: Qualitative research Method 15hrs

- a. Qualitative research designs
- b. Selection of participants

- c. Instruments of qualitative study
- d. Qualitative data collection methods
- e. Qualitative data analysis
- f. Trustworthiness of Qualitative data

Unit 4: Mixed method in health research 5hrs

- a. Introduction to Mixed Methods (MM) study
- b. Theory of mixed methods
- c. Variations on the MM Designs
- d. Characteristics of MM Studies

Unit 5: Development of research proposal 10hrs

- a. Proposal of a research project - concept of proposal, components of a research proposal, research development process, obtaining ethical approval.

Unit 6: Writing Research Report

- a. Concept of research report
- b. Components of research report
- c. Organizing results
- d. Discussions of the results
- e. Limitations of research
- f. Conclusion and recommendation

Unit 7: Research report dissemination

- a. Oral presentation
- b. Poster presentation
- c. Publication

## Part E: Pedagogical methods

### 1. Objectives

At the end of the course, the learners will be able to:

1. Discuss the objectives and philosophies of pedagogy
2. Explain the required qualities for teaching in higher education
3. Discuss various pedagogical approaches used in education
4. Describe the relationship between curriculum and pedagogy
5. Describe the methods of student evaluation and assessment

### 2. Contents

- a. Objectives and philosophies of pedagogy
- b. Required qualities for teaching in higher education: individual, social and occupational/professional
- c. Pedagogical approaches (teaching methods and media) in education
- d. Curriculum and Pedagogy
- e. Balanced model of curriculum
- f. Methods of student evaluation and assessment: formative, summative and diagnostic