

## **Community Medicine Curriculum**

### **Overview**

The Community Medicine teaching programme extends over a period of four semesters (from the beginning of 4<sup>th</sup> to the end of 7<sup>th</sup> semester) during the third and fourth years of undergraduate training. The intended learning outcomes (ILOs) of the Community Medicine teaching programme are adopted from the main objectives of the undergraduate training programme of Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka. The ILOs are also inline with the WHO Guidelines for teaching of Public Health at undergraduate level in Medical schools (2011).

### **Goal**

The overall goal of the Community Medicine teaching programme is to ensure that the medical graduate has acquired public health competencies needed to solve health problems of the community with emphasis on health promotion, disease prevention, cost-effective/evidence based interventions and follow up.

### **Intended learning outcomes**

After completing the Community Medicine course, students will be able to,

1. Appraise health promotion, disease prevention and public health as major components of health and appraise the role of public health in providing individual healthcare.
2. Apply appropriate statistical techniques for presentation, analysis and interpretation of health data and critically appraise the statistical analysis in medical literature.
3. Identify the demographic changes in the community by accessing the demographic data sources and critically appraise the causal factors and implications of such changes pertaining to public health.
4. Describe the basic concepts of maternal and child health, promote maternal and child health through practical application of these concepts and critically appraise the current national family health programme of Sri Lanka.
5. Describe the distribution and determinants of health related events in a community by using appropriate epidemiological measures, explain basic concepts of causation and critically appraise the epidemiological methods used in scientific literature.
6. Explain the epidemiology of common communicable diseases in the global and local context and apply the knowledge for the control and prevention of the communicable diseases in the community in parallel with the public health system.
7. Explain the epidemiology of common non communicable diseases in the global and local context and to apply the knowledge for the control and prevention of the non communicable diseases in the community by addressing the modifiable and non modifiable risk factors in the context of the national programme.
8. Explain nutrition related problems in the community/individuals by conducting appropriate nutritional assessment methods and/or by interpreting secondary data to formulate appropriate strategies to address immediate, underlying and basic causative factors in parallel with the public health policy context.

9. Apply the basic concepts in occupational health to promote health in working places and to prevent common hazard at work settings.
10. Recognize the environmental health issues at household and community levels and to formulate appropriate environmental friendly interventions.
11. Access and appraise scientific information, design and carry out simple epidemiological research by identifying gaps in scientific literature and present the findings of the research in a scientific format.
12. Promote health of individuals and families focusing on priority health needs and health related problems at individual/family level considering the given social, cultural, economic and demographic context.

**Intellectual and practical skills to be developed (outcomes)**

1. Inquiry and analysis
2. Critical and creative thinking
3. Written and oral communication
4. Quantitative literacy
5. Information literacy
6. Team work and problem solving
7. Ethical reasoning and action
8. Self-learning and learning through observations

## Course content

### Course Structure

The Community Medicine teaching programme has 12 modules.

Course Code	Course Unit	Credit Value
CMD 3111	Demography	1
CMD 3121	Introduction to Biostatistics	1
CMD 3212	Maternal and Child Health	2
CMD 3221	Basic Epidemiology	1
CMD 3234	Public Health in Practice-I (Family Study Programme)	4
CMD 4111	Applied Epidemiology and Communicable Diseases	1
CMD 4121	Non Communicable Disease Epidemiology	1
CMD 4131	Community Nutrition	1
CMD 4145	Research in Medicine	5
CMD 4211	Occupational and Environmental Health	1
CMD 4224	Public Health in Practice-II (Clerkship Programme)	4
CMD 4232	Public Health in Practice-III	2
	<b>Total</b>	<b>24</b>

#### **CMD 3111 - Demography**

1. Introduction to demography
2. Demographic transition and implications
3. Fertility transition and contributory factors
4. Mortality transition and contributory factors
5. Migration and urbanization
6. Health implications of ageing

#### **CMD 3122 - Introduction to Biostatistics**

1. Type of data
2. Variables
3. Summarization and presentation of data
4. Measures of central tendency
5. Measures of dispersion
6. Normal Distribution, Standard Normal Distribution and Z test
7. Sampling
8. Significance testing and inferential statistics

#### **CMD 3213 - Maternal and Child Health**

1. Introduction to Family Health Programme
2. Safe Motherhood
3. Maternal care programme
4. Maternal mortality

5. Maternal death investigation
6. Introduction to child health programme
7. Newborn care
8. Infant feeding -Breast feeding
9. Infant feeding – Complementary feeding
10. Growth Monitoring and Promotion
11. Early Childhood Care and Development
12. Family Planning
13. Sexual and reproductive health
14. Gender and health
15. Health of school children
16. Adolescent health

**CMD 3222 - Basic Epidemiology**

1. Introduction to epidemiology
2. Measures of disease frequency
3. Observational studies
4. Experimental studies
5. Errors in epidemiological studies
6. Causation
7. Screening
8. Clinical epidemiology

**CMD 3234 - Public Health in Practice I** (Family study programme)

**CMD 4112 - Applied Epidemiology and Communicable Diseases**

1. Epidemiological triad and principals of disease prevention
2. Principals of communicable disease prevention
3. Outbreak investigation
4. Disease surveillance
5. One health approach in epidemiology
6. Epidemiology, control and prevention of common communicable diseases  
Dengue, Leptospirosis, Typhus, Typhoid, Leishmaniasis, EPI diseases, Leprosy, Tuberculosis, Malaria, Sexually Transmitted Infections (STI), Emerging and reemerging infectious diseases

**CMD 4122 – Non Communicable Disease Epidemiology**

1. Epidemiological transition
2. Nutrition transition
3. Dual burden of diseases
4. Classification of NCDs
5. Global regional and local epidemiology of NCDs
6. Global policies, action plans and interventions to prevent NCDs
7. National policies and strategies on NCD prevention
8. NCD surveillance
9. Global and local epidemiology of major NCDs
  - a. Cancer epidemiology: breast, cervical, bronchial and oral cancers
  - b. Cardio Vascular Diseases
  - c. Diabetes
  - d. Chronic kidney diseases
  - e. Chronic respiratory diseases

- f. NCD surveillance
- g. Mental health disorders
- h. Acute NCDs

**CMD 4131 - Community Nutrition**

- 1. Basic concepts of nutrition
- 2. Nutritional assessment-Individual/population level
- 3. Causes of malnutrition
- 4. Common nutritional problems in Sri Lanka
- 5. Micronutrient deficiencies
- 6. Nutritional interventions

**CMD 4146 - Research in Medicine**

- 1. Hypothesis development
- 2. Literature search
- 3. Selecting a population/sample
- 4. Development of study tools
- 5. Qualitative and quantitative methods
- 6. Data management
- 7. Statistical analysis
- 8. Presentation of scientific findings

**CMD 4211 - Occupational and Environmental Health**

- 1. Basic concepts in environmental health
- 2. Environmental pollutants
- 3. Control and prevention of air, water, soil and noise pollution
- 4. Legislations and programmes to prevent environmental pollution
- 5. Basic concepts in occupational health
- 6. Healthy work place
- 7. Legislations and programmes to improve health in working places

**CMD 4225 - Public Health in Practice II (Clerkship programme)**

- 1. Introduction to public health field services in Sri Lanka
- 2. Function and responsibilities of
  - a. MOH
  - b. RDHS/MOMCH/RE/RMO/MONCD
  - c. PHNS/SPHM
  - d. SPHI/PHI
  - e. PHM
- 3. Functions and services of
  - a. Poly clinic
  - b. Well woman clinic
- 4. Health promotion in schools
- 5. Primary health care services
- 6. Health of special populations
  - a. Mentally disable children
  - b. Deaf & blind
  - c. Elderly
- 7. Health information system and vital statistics
- 8. Occupational health
- 9. Research in application

10. Journal club and introduction to evidence based practice
11. Safe water as a leading public health intervention
12. Geographical variation of disease pattern

### **CMD 4231 - Public Health in Practice III**

1. Health promotion and primary healthcare
2. Public health ethics
3. Health systems, healthcare management and planning
4. Public health in special situations/disaster management
5. Introduction to Health economics
6. Public health programmes in Sri Lanka
7. Health of special populations
8. Social determinants of health
9. Health in emergencies

## **Assessments**

Both formative and summative assessments will be conducted in the Community Medicine teaching programme.

### **Summative Assessments**

Summative assessments will be based on modular exams. Except for the modules CMD 3234, CMD 4145 and CMD 4224, for all the other modules, a written examination will be conducted.

Public Health in Practice I module (CMD 3234),  
360-degree assessment will be carried out. Feedback assessment from facilitators, group supervisors, peers, family members and healthcare staff will be obtained for this assessment. Communication, presentation, group work, community health activities, subject knowledge, attitudes and practices of the student will be considered for the feedback assessment.

At the end of the 7<sup>th</sup> semester, all student groups are expected to submit a Family Study Report and a group wise assessment will be done, based on the submitted report. An oral examination will be conducted for individual student assessment.

Public Health in Practice II module (CMD 4145),  
At the end of the 8<sup>th</sup> semester, an Objectively Structured Public Health Examination (OSPHE) will be conducted.

Research in Medicine module,  
Research protocol will be assessed after the 3<sup>rd</sup> semester. Ethical aspects of the research will be evaluated by the ERC committee and the report will be added to the assessments. Final assessment will be a research report and a student presentation at the 5<sup>th</sup> semester.

### **Overall Assessment of the Community Medicine course**

Final marks will be calculated using weighted average of all modular assessments.

### **Criteria to obtain a pass in Community Medicine course**

A student should,

1. Score a minimum weighted average of 50 for the course
2. Not have marks less than 30 for a given module.
3. Not have less than 40 for two modules.
4. Score a minimum of 40% for the Public Health in Practice I, II and II modules
5. 80% attendance for tutorials is compulsory

Students obtaining marks less than 30 for a given module should sit for the particular module paper again. Students having marks less than 40 could also sit for the module paper again to improve their weighted average. However, the maximum mark allocated for subsequent attempts is limited to 50 marks.

### **Criteria to obtain a distinction in Community Medicine course**

1. Score a minimum weighted average of 70

### **Criteria for gold medals in Community Medicine**

1. Outstanding Performance in Community Medicine  
Second Class honors in 3rd MBBS Examination & Distinction in Community Medicine, Highest aggregate in community medicine field practice & research
2. Highest aggregate in community Medicine  
Second Class Upper Division in 3rd MBBS Examination & Distinction in Community Medicine, Highest Aggregate in Community Medicine