AIK Medical College Muzassarabad



Module Code: CHP





Duration: 4 Week Commencing on: DEPARTMENT OF MEDICAL EDUCATION

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Module Team

Prof. Brig (R) Dr. Ahmad Khan	Module Planner
Dr. Zayed Afzal Kayani	Module Coordinator
Dr. Uzma Hafeez	Member
Dr. Irum Gillani	Member
Dr. Bilal	Member
Dr. Murtaza Gillani	Member
Dr. Sarwat Qadeer	Member
Dr. Zehra Batool	Member
Dr. Saamia Manzoor	Member

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2. INTRODUCTION

Health is a state of complete physical, mental, and social well being and not merely the absence of disease or infirmity. Disease process starts as a result of interaction between agent, host and environment. To seek solution of health related issues community relies on health system. Health system is not the name of department of health only it includes Multisectorial involvement in which all stake holders are taken on board in order to plan, implement, monitor, evaluate and report health related programs.

Department of Community Medicine & Public Health believes on an integrated approach to solve health related issues of the community by not only involving all health related sectors, relevant line departments but also the community because no program can become sustainable without its full ownership. Students are taught about the concepts of population-wide approaches. This innovated approach of department of community medicine and public health has been given full strength by modular system of medical education being followed at Azad Jammu and Kashmir Medical College Muzaffarabad . This module revolves around concept of health and disease, disease spectrum, outbreak investigation & epidemiology. It also covers important role of environment which plays an important role in disease occurrence. Students will be involve in research process from designing research question basic computer skills used for data entry, interpretation and then presentation of their work in the form of groups, this practice will help them in future during their research work. Different modes of information transfer like Long group interactive sessions, small group discussions, skill labs, self directed learning and field visits are used to make students critical thinker. Department of medical education plays an important role in execution of all departmental activities by bridging the gaps and coordinating at various levels. And of course examination department helps to evaluate the knowledge and skills gained by the students during interactive sessions and make further improvement which is always needed to plan a better future teaching strategy.

2.1 Rationale

For making informed and effective decisions regarding health of the community, understanding of the disease dynamics and trends in the community are essential. Epidemiology helps to identify the distribution and determinants of health related states including events in human populations that are of major importance to health professionals. Health statistics and data are vital because they measure a wide range of health indicators in order to provide comparisons, to assess health care cost, to identify desirable prevention targets, and to plan and evaluate programs and interventions. Therefore, it is imperative for the future medical graduates to become skillful in the concepts of epidemiology and biostatics which will enable them to make evidence-based decision-making in the interest of improved patient management. Furthermore, after acquiring research skills, medical graduates will develop critical thinking to evaluate basic and clinical research in the field.

2.2 AIMS OF THE MODULE:

The module aims to provide:

Application of knowledge and problem solving rather than only recall of factual knowledge and to define the psychomotor skills with regard to health and disease, so that the students should be able to perform themselves and differentiate them from those that should be observed. The overall module document emphasize on areas that the student must know, incorporate new fields of knowledge, and yet ensure that the student is not over burdened and hence eliminate details of uncommon conditions

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2.3 OBJECTIVES OF THE MODULE (GLO's):

Objectives of the module are to provide;

- Knowledge and understanding of concept of health and disease, the spectrum and determinants of health and disease.
- Methodology of effective communications and will be able to communicate with their colleagues, patients, supervisors and Community.
- Knowledge understanding and relevance of health education in the treatment and prevention of diseases and community health issues
- Understand the health and disease phenomenon on scientific grounds and the methodology of maintenance and restoration of normal health.
- Understand the process of basic statistics for making sense from the available data and give statistical significance to the research studies conducted

2.4 Teaching Strategies:

The knowledge of this module will be imparted in a coherent manner by a blend of different teaching strategies including:

- Large group interactive sessions (LGIS).
- Small group discussions (SGD)
- Problem-based learning(PBL)
- Skill labs
- Self-directed learning(SDL)
- Directed self learning(DSL)
- Field visits
- Group research work
- Group presentations
- Writing Skills

2.5 Organization of Module

The module consists of five themes, each based on a real life situation. The module will employ different modes of instruction, briefly described below. Major emphasis will be on discussion, analysis and deductions; all by the students and guided by the faculty.

2.6 Content Delivery

Entire curriculum will be delivered by clinical case scenarios each covering a theme. Read the cases and the objectives of the theme which you are supposed to encounter next day, understand and explain the case to yourself and read the relevant information. Following learning/teaching strategies will be employed to discuss the cases:

Small Group Discussion

Main bulk of the course content will be delivered in small group sessions. Each theme has an associated case. The case will be the centre around which learning will take place. Depending on the case you might be required to deduce objectives and learning issues or only learning issues. Every group will have a facilitator assigned to it. The facilitator will be there to keep you on track, giving you maximum liberty to discuss and achieve the objectives as a group. Small groups in some cases may be followed by a wrap up session. Rest of the information will be there in the schedule.

Large group interactive session

Large group instruction will also be employed. Attend large group sessions with the following focus

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- a. Identify important points
- b. Ask questions of points not well understood in the text
- c. Measure your learning comprehension

Videos

Video demonstrations on community health issues, on diseases will be shown to give you an idea into the disease process, testing and practical aspect of communication with the patients and community.

Hands-on Activities/ Practical

Practical activities, linked with the case, with community health and research issues, developing a research project and implementing it will also be an integral part of module delivery.

Community visits

Visits to the community for different health issues like water and sanitation, hands on experience with research will be part of module delivery.

Journal clubs

Selected research articles will be discussed and appraised in journal clubs for understanding of epidemiology and statistical issues as well as overall impact of research on health care of the community

Self Directed Learning

A few SDLs have been added in between to create an environment for you to search literature as well as to deduce and synthesize information from different sources to meet the learning objectives. It will also help in breaking the monotonous / strenuous schedule and make you lifelong learner.

Directed Self Learning

Selected topics will be given to the students for which they have to search literature as well as to deduce and synthesize information from different sources to meet the learning objectives.

2.7 Assessment

In this four-week duration module, you will have surprise quizzes and intermittent short tests. A full-fledged formative assessment will be taken at the end of module. This will give you an idea about the format of the examination that you will go through at the end of the Block. Of course, this will be followed by feedback on your performance in the exam.

Marks obtained in the module examination will contribute 30% (internal assessment) towards end of year Professional University Examination.

THEMES

S #	Themes	Weight %
1	Foundation of community medicine	15%
2	Investigating burden of disease	20%
3	scientific approach to information	30%
4	Environment & Global Warming	20%
5	Bite & Leadership	15%
	Total	100

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TABLE OF SPECIFICATIONS

THEME I: FOUNDATION OF COMMUNITY MEDICINE (15%) HEALTH & DISEASE

LEARNING OBJECTIVES

- Define basic concepts of community medicine
- Define health and explain the concept of well being
- Discuss spectrum of disease and illness
- Differentiate between different dimensions of health
- Describe the state of health and disease and their determinants
- Explain Primary Health Care, its principles, activities and basic requirements
- Explain the natural history of disease
- Understand the significance of iceberg phenomenon
- Identify the common health problems of the Rural & Urban community
- Define indicator
- Classify and discuss health indicators in detail

THEME II: INVESTIGATING BURDEN OF DISEASE (20%) EPIDEMIOLOGY

LEARNING OBJECTIVES

- Define epidemiology
- Draw & interpret the epidemic curve
- The purpose of studying cause and effect in epidemiology is to generate knowledge to prevent and control disease
- Describe the various types of epidemiological methods (Descriptive and Analytical) in terms of time, place and person
- Discuss their advantages and disadvantages
- Explain different types of measurements and tools of measurements in epidemiology
- Discuss Morbidity and Mortality / Incidence and Prevalence rates and their difference
- Steps in an epidemic/outbreak investigation, List reasons for investigating an epidemic,
- List and explain the steps of investigation of an epidemic
- Differentiate between Outbreak investigation and Screening for disease
- Define sampling, discuss types and uses of sampling
- Describe Surveillance
- list the variables for analyzing surveillance data

THEME III: SCIENTIFIC APPROACH TO INFORMATION (30%) RESEARCH METHODOLOGY

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LEARNING OBJECTIVES

- Describe steps of development of research question
- Describe aim & objectives
- Develop aim & objectives of a research project
- Define ethics and biomedical ethics
- Describe principles of ethics in biomedical research
- Understand plagiarism and its consequences in research
- How to conduct research?
- How to read research article?
- Allocation of research topics to groups
- Define ethics and informed consent during examination of the patients as well as data collection. Concepts of confidentiality of patients/participants data and its importance.
- The potential contributions of various study designs for making contributions to causal knowledge
- Differentiate between types of epidemiological studies, their strengths and limitations
- Basic statics
- Types of measurements applied on data
- Conduct House Hold Survey
- Complete assignment as per House Hold Survey Practical Book

THEME IV: Environment & Global Warming (20%)

LEARNING OBJECTIVES

- Knowledge about various sources of Water.
- Various methods of water purification on small & large scale.
- Knowledge of water related diseases.
- Explain school health, its components, problems faced by a school child and functions of school health team
- Define disaster and its types
- Describe Disaster preparedness Management
- Describe the fundamentals of Health Management Information System
- Field Visit to Islamabad
- Write visit report
- Discuss various ways of communication, their uses in patients and community perspective

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THEME IV: Environment & Global Warming (20%) (Continue)

LEARNING OBJECTIVES

- Discuss various types of waste (domestic, industrial, hospital waste) and its disposal
- Define healthcare waste, its sources, health hazards, methods of disposal and personal safety.
- Discuss basic concepts of green house, green house effect, uses and mechanism of green house effect. Concept of global warming
- Discuss triple burden of disease, epidemiology and prevention from injuries and accidents
- Define housing, criteria for healthful housing, standards for healthful housing and effects of poor housing
- Describe food fortification and adulteration
- Explain their significance on health
- Classify food borne diseases
- Field Visit to CMH Incinerator
- Write visit report

THEME V:Bites & Leadership (15%)

LEARNING OBJECTIVES

- Define international health, challenges relating to health at international levels, discuss various agencies working on health in collaboration of WHO, Where Pakistan is standing at international level.
- Discuss epidemiology, prevention and treatment from snake bite
- Define dental health, epidemiology and prevention from dental diseases
- Define mental health, role of a psychosocially healthy person in society, prevention from mental ailments
- Discuss epidemiology in terms of time, place ,person, Management and prevention from Rabies
- Discuss concepts of leadership/stewardship, role and responsibilities of leader, first building block of WHO conceptual framework
- Explain geriatrics ,common health related issues in elderly population, their level of dependency and ways to address their problems

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PBL-1

You are working as a civil medical officer at Rural Health Centre Garhi Dopatta from four years, your basic responsibility is to provide outdoor patient care, emergency services as well as reporting monthly report to District health office under supervision.

Your monthly patients flow is over 4000, Your healthcare facility is equipped with minor procedure room, detention room, vaccination centre, TB centre, MCH centre and an ambulance.

During rainy season usually 30 cases of diarrhea are reported per month but this time this number has raised to more than 55,mostly cases were from village kakarwara about 07 km from garhi Dopatta, this was an unusual happening ,you started managing the patients more vigilantly.

On probing a patients you came to know that he has rice water stools more than 15 times since morning ,vomiting 06 times. On examination he was lethargic severely dehydrated, his blood pressure was 80/50 mm of Hg. Patient belonged to low socioeconomic background. You have planned to involve district health authorities to investigate this alarming situation.

PBL-2

You wanted to know the relationship between sedentary life style and development of obesity in 100 students of your junior class 3rd year MBBS, for that matter you divided the class in two groups: Group A included 48 students who had no active routine life, no exercise, no extracurricular activities and Group B included 52 students who do exercise routinely and take part in extracurricular activities. You observed both groups for a period of 10 years and came to know that 20 students from group A and 05 students from Group B developed obesity.

Resources for learning

- Ilyas Ansari. Text book of community medicine 8th edition
- Park J E & K. Park, Text Book of P & S.M., M/S Banarsidas Bhanot, Jabalpur
- Textbook of Community Medicine: Preventive and Social Medicine, by Sunderlal
- Maxcy Rosenau John M. Last, Public Health and Preventive Medicine, McGraw-Hill Medical; 15 edition
- Oxford Textbook of Public Health by Roger Detels, James McEwen, Robert Beaglehole, Heizo Tanaka from Oxford University Press, USA
- The Theory and Practice of Public Health by William Hobson from Oxford Med. Publication
- Mac, Mahon & Pugh, Epidemiology-Principles and Methods, Little Brown & Co. Boston, U.S.A.
- Epidemiology, by Leon Gordis, Elsevier Saunders publication
- A Short introduction to Epidemiology, Wellington 2005
- Mawner & Kramer, Epidemiology: An Introductory Text, 1985, W.B. Saunders Co. Barker D J P, Practical Epidemiology, Churchill Livingstone
- Bradford Hill, Principles of Medical Statistics, The Lancet Ltd. No. 7 Adam Street, Adelphine, London, 1967
- Medical Statistics: A Textbook for the Health Sciences By Michael J. Campbell, David Machin, Stephen John Walter
- An introduction to Biostatistics, Sunder Rao/Richard

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MENTORING PROGRAMM

The class is divided into groups of 10 students and each group has a designated teacher, who is assigned as mentor. The Students will meet him / her once a week in the mentor's office to discuss academic, social, and problems for advice and guidance.

MENTORING SCHEDULE

Supervisor/Program In charge: Prof. Brig (R) Ahmed Khan (HOD Community Medicine)

LIST OF STUDENTS SUPERVISED BY MENTORS

S.#	Mentor	Student Roll #
1.	Prof. Brig (R) Ahmed Khan	1 to15
2.	Dr. Irum Gillani	16 to 25
3.	Dr. Uzma Hafeez	26 to 35
4.	Dr.Bilal	36-45
5.	Dr. Sarwat Qadeer	46-55
6.	Dr. Syed Murtaza Gilani	56-70
7.	Dr. Zehra Batool	71- 85
8.	Dr. Saamia Manzoor	86-100

Following will be the meeting schedule!

- ⇒ Mentors (10 minutes with each student) 2 hours / week.
- ⇒ Supervisors /In-Charge (with the mentors) I hour / week.
- ⇒ Program Manager (with Supervisors/In-charge) once per month.

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AJK Medical College, Muzaffarabad Schedule for CHP – 4th Year

week-1						
TIME	Monday	Tuesday	Wednesday	Thursday	Friday	
8:00am- 09:00am	LGIS CHP Module Introduction to Module Prof. Brig (R)Ahmad Khan & Team	LGIS Epidemiology Basic Epidemiology Prof. Brig (R)Ahmad Khan/ Dr.Uzma Hafeez	LGIS Screening Prof. Brig (R)Ahmad Khan/ Dr.Uzma Hafeez	LGIS Research Methodology Introduction Prof. Brig (R)Ahmad Khan	Ethics in Research Prof. Dr.Anwar- Ul-Haque/ Dr.Uzma	
09:00am- 10:00am	LGIS Health & Disease Health Dimension & Determinants/Indictors Prof. Brig (R)Ahmad Khan/ Dr.Uzma Hafeez	LGIS Epidemiology Epidemiological Methods Dr. Uzma Hafeez	LGIS Epidemiology Disease Surveillance Dr. Murtaza Gilani	LGIS Research Methodology Development of Research Question/Development of AIMS & Objective Dr. Irum Gillani	LGIS Research Methodology Developing Question Research Prof. Ayub Khan	
10:30am- 1:30pm	Clinical Rotation	Clinical Rotation	Clinical Rotation	Clinical Rotation	LGIS Research Methodology Study Design-II Dr. Murtaza Gilani LGIS Research Methodology Sampling Dr. Irum Gillani Dr. Murtaza Gilani	
		Lunch &	Prayer Break			
2:00pm- 4:00pm	LGIS Health & Disease Health for All Prof. Brig (R)Ahmad Khan	Epidemiology Basic Measurement in Epidemiology Dr. Murtaza	LGIS Epidemiology Cross Sectional Studies. Case Control Studies. Cohort Studies. Experimental	LGIS Research Methodology Research Methodology &	SKILL LAB Developing Questioner Dr.Irum Gillani Dr. Uzma Hafeez Dr. Murtaza Gilani Dr. Sarwat	
4.00pm	Health & Disease Natural History of Disease & Iceberg Phenomenon Prof. Brig (R)Ahmad Khan/ Dr. Sarwat Qadeer	Epidemic Prof. Brig	Studies. Dr. Uzma Hafeez/ Dr. Sarwat / Dr.Murtaza Gillani ra Batool	Study Design-I Dr. Murtaza Gillani	Dr. Zehra Batool Dr. Saamia Manzoor	

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AJK Medical College, Muzaffarabad Schedule for CHP – 4th Year Week-2

Week-2							
TIME	Monday	Tuesday	Wednesday	Thursday	Friday		
8:00am- 09:00am	Short Test-I	LGIS Health Information Health Education/Communication Prof. Brig (R)Ahmad Khan/ Dr.Uzma Hafeez/ Dr.Sarwat	LGIS Health & Disease Health Problems in Rural and Urban Setting Prof. Brig (R)Ahmad Khan	<u>LGIS</u> <u>Nutrition</u> Balanced Diet Dr. Murtaza Gilani	LGIS. Accidents and its Prevention Dr. Sarwat Qadeer/ Prof. Brig (R) Ahmad Khan		
09:00am- 10:00am	LGIS WHO/International Health Dr. Zehra Batool	<u>LGIS</u> <u>Snake Bite</u> Dr. Zehra Batool	LGIS Health Information HMIS Prof. Brig (R)Ahmad Khan	LGIS Nutrition Obesity Prof. Brig (R) Ahmad Khan/ Dr. Zehra Batool	LGIS Housing & Health Dr. Sarwat		
10:30am- 12:30pm	Field visit to BHU/RHC	Clinical Rotation	Clinical Rotation	Clinical Rotation	Field Visit to Incinerator CMH.		
		Lunch & Pra	yer Break				
2:00pm- 4:00pm	LGIS Waste Waste types and its Disposal Dr. Sarwat Qadeer Dr. Saamia Manzoor	LGIS Water Water Sampling WHO Standard Dr. Saamia Manzoor/Murtaza	LGIS Hospital wasted and its management Dr. Uzma Dr. Zehra Batool	LGIS <u>Nutrition</u> Food Fortification/ Adulteration Dr. Saamia Manzoor	LGIS Health Economics Dr. Bilal Zafar		
	LGIS Water Sources, Types of water filters. Dr. Sarwat Qadeer/ Dr.Saamia Manzoor	Practical ORS Preparation Prof. Brig (R) Ahmad Khan & Team	LGIS Water Water Related Disease Prof. Brig (R)Ahmad Khan	LGIS Nutrition Food Borne Disease/Malnutrition/Food Poisoning Dr. Uzma Hafeez	LGIS Community Mental & Dental Health Dr. Saamia Manzoor		

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AJK Medical College, Muzaffarabad Schedule for CHP – 4th Year

		,,,	cer-3		
TIME	Monday	Tuesday	Wednesday	Thursday	Friday
8:00am- 09:00am	Short Test -II	LGIS Entomology-I Prof. Brig® Ahmad Khan	LGIS Bio-Statistics Sources of Health Statistic Dr. Uzma Hafeez/Dr.Bilal	LGIS Bio-Statistics Inferential Statistics Dr. Uzma Hafeez/Dr.Bilal	LGIS Role of Community Ophthalmology. Dr. Bushra
09:00am- 10:00am	LGIS Bio-Statistics Concepts and uses Dr. Uzma Hafeez Dr. Bilal	LGIS Bio-Statistics Hypothesis /Null Hypothesis Dr. Irum	LGIS Bio-Statistics Sampling and its technique-I Dr. Bilal/Dr.Irum	LGIS Bio-Statistics Sampling and its teaching -II Dr. Bilal/Dr.Irum Gillani	LGIS Blindness and Its Prevention Dr. Munir
		Break 1	0:00-10:15		
10:15am- to 11:15am 11:15am- to 12:15pm	LGIS Bio-Statistics Tool of Measurement Dr. Uzma Hafeez/Dr.Bilal LGIS Bio-Statistics Descriptive Statistics Dr. Uzma Hafeez/Dr.Bilal	Clinical Rotation	Clinical Rotation	Clinical Rotation	PBL-1B
12:15pm- to 01:00pm	LGIS Bio-Statistics Measurement of Central Tendency Dr. Bilal				Water Filtration Plants
01:00 pm- 1:45 pm	LGIS Bio-Statistics Normal Distribution Curve Dr. Bilal	PBL-IA	LGIS Entomology-II Prof. Brig® Ahmad Khan	LGIS Entomology –III Prof. Brig® Ahmad Khan	Water Filtration
	Plants				
02:00 pm – 04:00 pm	DSL	DSL	DSL	SDL	

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AJK Medical College, Muzaffarabad Schedule for CHP – 4th Year Week-4

TIME	Monday	Tuesday	Wednesday	Thursday	Friday
8:00am- 09:00am	Short Test -III	LGIS Leadership and decision making Prof. Brig (R) Ahmad Khan	LGIS Behavior Science and Community Health Dr. Ayesha	LGIS Geriatrics Prof. Brig (R)Ahmad Khan/ Dr.Uzma Hafeez	LGIS Immunity EPI-I Dr. Zehra Batool
09:00am- 10:00am	LGIS Rabies and its prevention. Dr. Zehra Batool	LGIS Green House Effect Dr. Irum Gillani Dr. Murtaza Gilani	LGIS Substances abused a community health problem. Dr. Saamia	LGIS Development of Questionnaire Dr. Irum Gillani	LGIS Communicable Disease of Public Health Importance Dr. Bilal
10:15am- to 11:15am 11:15am- to 12:15pm	Clinical Rotation	Clinical Rotation	Clinical Rotation	Clinical Rotation	LGIS Non- Communicable of Disease of Public Health Importance Dr. Murtaza Gillani LGIS Hazards of Blood
to 01:00pm					Transfusion Dr.Irum Gillani
01:00 pm- 01:45 pm	PBL-2A	Skill Lab Population and Sampling Prof. Brig (R)Ahmad Khan & Team	LGIS TB and its prevention Dr. Murtaza	PBL-2B	Jummah Prayer
02:00 pm – 04:00 pm	SDL	SDL	DSL	SDL	DSL

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Inquires & trouble shooting

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