



## **COMMUNITY & PREVENTIVE DENTISTRY**

# Study Guide

*College of Dentistry, Lahore Medical & Dental College*  
**COMMUNITY & PREVENTIVE DENTISTRY CURRICULUM**  
**(2023-2024)**



**Course Director:**

Prof. Dr. Nazli Shujaat                      BDS, MSc (UK), F.I.C.D (USA)                      Head of Department

**Contributors:**

Dr. Syeda Lalarukh Saba Shah	BDS, MPH	Assistant Professor
Dr. Mariam Fatima	BDS, MPH	Assistant Professor
Dr. RahemaZahid	BDS	Demonstrator
Dr. Syed Hussain Al Hussaini	BDS	Demonstrator



### **INTRODUCTION:**

Community & Preventive Dentistry or Dental Public Health is a broad subject which seeks to expand the focus and understanding of the dental profession on the range of factors that influence oral health and most effective means of preventing and treating oral health problems.

### **OBJECTIVES:**

- To encourage students to develop analytical skills and intriguing approach to the delivery of Dental care.
- To understand and explore the factors determining Oral Health and the most effective ways of preventing and treating Oral Diseases and reducing inequalities.

### **COMPETENCIES:**

#### ***Major Competence:***

Improving Oral Health of individuals, families, community and country.

#### ***Supporting Competence:***

- Be able to apply the Principles of Health Promotion and disease prevention.
- Be able to understand the need of geriatric patients and complex relationship or Oral and general aging changes and diseases of such patients.
- Have knowledge of the Health Care System and provision of health care to the community and hospital services.
- Be competent in understanding the complex interactions between Oral health nutrition, general health, drugs and diseases that can have an impact on Oral health and Oral diseases.
- Have knowledge of the prevalence of common Oral diseases in the country of practice.
- Be able to evaluate the social and economic trends and their impact on Oral Health care.



## **COMMUNITY & PREVENTIVE DENTISTRY**

- Have knowledge of the importance of community based preventive measures.
- Be able to carry out Oral Health Promotion & Education Programs for groups, children and adults.
- Advocate Community based preventive measures such as *Water Fluoridation*.
- Be able to provide Health care in the community with full understanding of social, cultural and environmental factors which contribute to health or illness.
- Should have adequate knowledge of Evidence Based Dentistry and Basic Biostatistics and should be able to apply these in their own research.
- Have knowledge of country regulations governing the dental profession and the professional organizations and associations, both in-country and abroad.

### **Total number of Topics:**

<b>MODULE</b>	<b>NUMBER OF TOPICS</b>
Module I	14
Module II	Lectures = 21 Practicals/ OSPE = 9
Module III	22
Module IV	9
Module V	16



**COURSE OUTLINE**

<b>Sr#</b>	<b>LECTURE/ DISCUSSION TOPICS</b>	<b>FACILITATOR</b>	<b>MIT</b>
<b><i>MODULE I: DENTAL PUBLIC HEALTH</i></b>			
1	Principles of Dental Public Health	Prof. Dr. Nazli Shujaat	
2	Definition of Health	Dr. Mariam Fatima	
3	Determinants of Health	Prof. Dr. Nazli Shujaat	
4	Risk	Prof. Dr. Nazli Shujaat	
5	Public Health Approaches to prevention	Prof. Dr. Nazli Shujaat	
6	Clinical Iceberg	Dr. Mariam Fatima	
<b><i>MODULE II: ORAL EPIDEMIOLOGY</i></b>			
7	Overview of Epidemiology	Prof. Dr. Nazli Shujaat	
8	Types of Study	Prof. Dr. Nazli Shujaat	
9	Trends	Prof. Dr. Nazli Shujaat	
10	Evidence-Based Dentistry	Dr. Syeda Lalarukh Saba Shah	
11	Surveying and Oral Health Surveys	Dr. Syeda Lalarukh Saba Shah	
12	Oral Indices	Dr. Mariam Fatima	
13	Dental Auxiliaries (Profession Complementary to Dentistry)	Dr. Mariam Fatima	



## **COMMUNITY & PREVENTIVE DENTISTRY**

14	Epidemiology of Oral Diseases	Prof. Dr. Nazli Shujaat	
	<b><i>MODULE III: PREVENTION &amp; ORAL HEALTH PROMOTION</i></b>		
15	Overview	Prof. Dr. Nazli Shujaat	
16	Sugar and Caries Prevention	Prof. Dr. Nazli Shujaat	
17	Oral Cancer Prevention	Prof. Dr. Nazli Shujaat	



## **COMMUNITY & PREVENTIVE DENTISTRY**

<b>Sr#</b>	<b>LECTURE/ DISCUSSION TOPICS</b>	<b>FACILITATOR</b>	<b>MIT</b>
18	Prevention of Periodontal Diseases	Prof. Dr. Nazli Shujaat	
19	Fluoride and Fissure Sealants	Prof. Dr. Nazli Shujaat	
20	Prevention of Dental Trauma	Prof. Dr. Nazli Shujaat	
21	Principles of Oral Health Promotion	Prof. Dr. Nazli Shujaat	
22	PHCA	Prof. Dr. Nazli Shujaat	
23	Oral Health Education	Dr. Syeda Lalarukh Saba Shah	
24	Behavior Change	Dr. Syeda Lalarukh Saba Shah	
25	Nutrition and Oral Health	Dr. Mariam Fatima	
26	How to carry out Atraumatic Restorative Treatment (ART) on Decayed Teeth	Dr. Syeda Lalarukh Saba Shah	
27	Oral Hygiene Aids (Types of Brushing Techniques, Flossing, Dentifrices)	Dr. Mariam Fatima	
28	Disclosing Agents	Dr. Mariam Fatima	
	<b><i>MODULE IV: HEALTH SERVICES</i></b>		
29	Overview of Health Care Systems	Prof. Dr. Nazli Shujaat	
30	Quality assurance Dental Services	Prof. Dr. Nazli Shujaat	
31	Planning	Dr. Syeda Lalarukh Saba Shah	



## **COMMUNITY & PREVENTIVE DENTISTRY**

32	Financing Oral Health Care	Prof. Dr. Nazli Shujaat	
33	Problems with Health Services	Prof. Dr. Nazli Shujaat	
34	Environment and Health	Dr. Mariam Fatima	
35	School Dental Health	Dr. Mariam Fatima	
<b><i>MODULE V: BIOSTATISTICS</i></b>			
36	Introduction of Biostatistics	Dr. Mariam Fatima	
37	Measures of Dispersion	Dr. Mariam Fatima	
38	Measures of Central Tendency	Dr. Mariam Fatima	
39	Normal Distribution	Dr. Mariam Fatima	
40	Probability	Dr. Mariam Fatima	



## **COMMUNITY & PREVENTIVE DENTISTRY**

<b>Sr#</b>	<b>LECTURE/ DISCUSSION TOPICS</b>	<b>FACILITATOR</b>	<b>MIT</b>
41	Sampling Techniques	Dr. Syeda Lalarukh Saba Shah	
42	Data Presentation & Types of Data	Dr. Syeda Lalarukh Saba Shah	
43	Introduction to Parametric and Non-Parametric Tests	Dr. Mariam Fatima	
44	Dental Ethics	Dr. Mariam Fatima	

<b>Sr#</b>	<b>PRACTICAL TOPIC</b>	<b>FACILITATOR</b>	<b>MIT</b>
1	Tooth Notation	Dr. Syeda Lalarukh Saba Shah	
2	Tooth Brushing	Dr. Syeda Lalarukh Saba Shah	
3	DMFT	Dr. Syeda Lalarukh Saba Shah	
4	CPITN	Dr. Mariam Fatima	
5	Instruments (Identification)	Dr.Syed Hussain Al Hussaini	
6	Materials (Identification)	Dr.Mariam Fatima	
7	Cross Infection Protocol	Dr. Rahema Zahid	





<b><u>COMMUNITY OUTREACH PROGRAM</u></b>	<b><u>HEALTH EDUCATION,HEALTH PROMOTION &amp; SCHOOL VISIT</u></b>
<p><b>Annual Dental Camp/Community Outreach program is held by the Department in liaison with other Dental College departments in which students participation is not mandatory</b></p>	<p><b>School visits are designed to engage the Dental undergraduate in promoting Oral health and educating school children about oral health problems and solutions. These are scheduled for 3-4 months in an academic year on a monthly basis. Students will visit schools in batches.</b></p>

**Prof. Dr. Nazli Shujaat**  
Head of Department  
Community & Preventive Dentistry  
LMDC, Lahore




## COMMUNITY & PREVENTIVE DENTISTRY

### MODULE I: DENTAL PUBLIC HEALTH

Weightage	No. of Seqs	No. Of Mcqs
23%	1	5

K= Knowledge

S= Skill

Learning Outcomes	MIT	K	S	Mode of Assessment
<p>By the end of this module, students should be able to:</p> <ul style="list-style-type: none"><li>• Define Dental Public Health</li><li>• Identify the links between clinical practice and dental public health</li><li>• Outline the criteria used to determine if a condition is a public health problem</li><li>• Describe the concepts of health, disease and illness from the perspective of a professional and lay person</li><li>• Outline the nature of and explanation for, Inequalities in health</li><li>• Describe the basis of common risk/ health factor approach</li><li>• Describe different strategic approaches in prevention</li><li>• Describe the rationale for choosing between approaches</li><li>• Outline the principles of screening</li><li>• Design a strategy to tackle a major oral health problem</li></ul>	Lecture & PBL Sessions			MCQs SEQs



## COMMUNITY & PREVENTIVE DENTISTRY

### MODULE II: ORAL EPIDEMIOLOGY

Weightage	No. of Seqs	No. of Mcqs
<b>Theory: 24%</b> <b>Practical/ OSPE: 83%</b>	5	15

Learning Outcomes	MIT	K	S	Mode of Assessment
<p>By the end of this module, learners should be able to:</p> <ul style="list-style-type: none"> <li>• Define epidemiology and its requirements</li> <li>• Describe the uses of epidemiology</li> <li>• Classify epidemiological studies</li> <li>• Outline the steps necessary to undertake and epidemiological study</li> <li>• Describe the different types of epidemiological studies and how they are applicable to dental care</li> <li>• Understand the principles of measuring dental disease</li> <li>• Classify surveys and be able to outline its steps</li> <li>• Describe the ideal features of an index and know some of the limitations of existing indices</li> <li>• Describe the index ages and correlate them with surveys and health</li> <li>• Classify Dental Auxiliaries</li> <li>• Describe the trends in Oral health of children and adults</li> <li>• Describe the trends in oral health inequality</li> <li>• Discuss the implications of these trends for oral health care</li> <li>• Define the terms <i>Evidence Based Medicine (EBM)</i> and <i>Evidence Based Dentistry (EBD)</i></li> <li>• Implement and EBD approach to a clinical problem</li> </ul>	Lectures  PBL Sessions  Small Group Teachings			MCQs  SEQs  VIVA



## COMMUNITY & PREVENTIVE DENTISTRY


Learning Outcomes	MIT	K	S	Mode of Assessment
<p><b><u>OSPE/ Practical skills:</u></b></p> <p>By the end of the practical skills teaching, students/ learners should be able to:</p> <ul style="list-style-type: none"><li>• Identify and differentiate between different instruments</li><li>• Demonstrate the practical application of each instrument</li><li>• Identify different filling and ART materials and be able to demonstrate the mixing and application of the mentioned</li><li>• Should demonstrate the correct method of Periodontal Probing on Typodont</li><li>• Should demonstrate full knowledge of all steps of Periodontal Probing including placement of instrument and application required force on gingiva</li><li>• Demonstrate full knowledge of <i>dmf</i> and <i>DMFT</i> and be able to measure and calculate <i>DMFT</i> from any patient scenario on models</li><li>• Illustrate complete knowledge of all brushing techniques and should be able to perform each technique on given model</li></ul>	OSPE			OSPE/ VIVA



## COMMUNITY & PREVENTIVE DENTISTRY

### MODULE III: PREVENTION & ORAL HEALTH PROMOTIONS

Weightage	No. of Seqs	No. of Mcqs
24%	3	10

Learning Outcomes	MIT	K	S	Mode of Assessment
<p>By the end of this module, students/ learners should be able to:</p> <ul style="list-style-type: none"><li>• Define Oral Health Promotion</li><li>• Apply the knowledge of principles of health promotion and disease prevention in creating strategies for this purpose</li><li>• Illustrate the need of geriatric patients and complex relationship of Oral and General aging changes and diseases of such patients</li><li>• Apply the concepts of disease etiology, its prevention and impact on the population by designing and conducting a survey</li><li>• Outline the key principles of oral health promotion</li><li>• Describe the five areas for action outlined in the Ottawa charter and provide oral health examples of each</li><li>• List potential partners and settings for oral health promotions</li><li>• Outline key findings of effectiveness reviews of oral health promotion</li><li>• Describe briefly how the action of fluoride was discovered</li></ul>	Lecture  PBL Sessions  Small Group Teachings			SEQs  MCQs  VIVA




## COMMUNITY & PREVENTIVE DENTISTRY

Learning Outcomes	MIT	K	S	Mode of Assessment
<ul style="list-style-type: none"> <li>• Describe how fluoride works in the prevention of dental caries</li> <li>• List and describe the methods of fluoride delivery</li> <li>• Be able to describe the advantages and disadvantages of each mode of delivery</li> <li>• Analyze the arguments for and against the use of fluoride in caries prevention</li> <li>• Outline the public health importance of fissure sealants</li> <li>• Present a classification of sugars based upon several types of classification</li> <li>• Critically outline the principal sources of evidence on the relationship between sugar consumption and caries development</li> <li>• Describe ways of assisting individuals to reduce their sugar consumption</li> <li>• Outline approaches to reduce sugars consumption at population level</li> <li>• Outline the principal epidemiological facts for Oral Cancer</li> <li>• Describe the etiology of Oral Cancer</li> <li>• Identify opportunities for prevention of oral cancer within the clinical environment</li> <li>• Outline a range of public health approaches to oral cancer prevention</li> <li>• Describe the key epidemiological features of periodontal diseases</li> <li>• Outline the main etiological factors in periodontal disease</li> <li>• Critically assess preventive options for periodontal disease</li> <li>• Outline preventive and health promotion approaches appropriate for the prevention of periodontal diseases</li> <li>• Define health education</li> </ul>	Lecture			SEQs
	PBL Sessions			MCQs
	Small Group Teaching			VIVA



## COMMUNITY & PREVENTIVE DENTISTRY

Learning Outcomes	MIT	K	S	Mode of Assessment
<ul style="list-style-type: none"> <li>• Outline key messages in oral health education.</li> <li>• Describe the steps involved in oral health education.</li> <li>• Present an overview of the different methods and materials used in health education</li> <li>• Outline the principles of evaluation of health education</li> <li>• Describe the the epidemiology and etiology of dental trauma and its impacts.</li> <li>• Outline the primary and secondary prevention of trauma.</li> <li>• Describe the limitations of treatment in dental trauma and its preventive options</li> <li>• Assess the oral health issues of old age and describe the factors limiting the access to receive care</li> <li>• Define, outline and describe different forms of disability and impairment.</li> <li>• Present an overview of the practical aspects of preventing oral disease.</li> <li>• Classify nutrients and describe each</li> <li>• Outline and identify Oral manifestations associated with malnutrition</li> <li>• Assess patient’s nutritional status and nutritional problems</li> <li>• List and give practical application of dietary counseling and advice</li> <li>• Define oral health education and be able to describe its objectives and principles</li> <li>• Enlist and describe the education process including the domains of learning</li> <li>• Identify and explain general educational theories and models</li> <li>• Describe the approaches in oral health education and health promotion</li> <li>• Identify, describe and have practical knowledge of <i>Atraumatic Restorative Treatment (ART)</i></li> </ul>	Lecture			MCQs
	PBL			SEQs
	Sessions			VIVA
	Small Group Teaching			



## COMMUNITY & PREVENTIVE DENTISTRY

### MODULE IV: HEALTH SERVICES

Weightage	No. of Seqs	No. of Mcqs
24%	3	5

Learning Outcomes	MIT	K	S	Mode of Assessment
<p>By the end of this module, students should be able to:</p> <ul style="list-style-type: none"> <li>• Outline the range of the factors that influence the development of health care systems</li> <li>• Describe the different components of a health care system</li> <li>• Outline criteria by which health care systems could be evaluated</li> <li>• Provide a definition of planning and outline the basic steps of planning cycle</li> <li>• Describe the range of information needed in planning dental services.</li> <li>• Define concepts of need</li> <li>• Outline the range of measures that are used in socio-dental measures</li> <li>• Define quality of health care and outline the principles of clinical governance</li> <li>• Understand the reason why health economics are part of modern health services</li> <li>• Briefly explain the work done in dentistry</li> <li>• Describe the common problems with health care delivery</li> <li>• Define the terms “<i>access to care</i>” and “<i>barriers to care</i>”</li> <li>• Briefly outline how the barriers to care might be overcome for disadvantaged groups</li> <li>• Define the term inequality and its relationship to the receipt of care and experience of poor health</li> </ul>	<p>Lectures</p> <p>PBL Sessions</p> <p>Small Group Teachings</p>			<p>SEQs</p> <p>MCQs</p> <p>VIVA</p>





**MODULE V: BIOSTATISTICS**

Weightage	No. of Seqs	No. of Mcqs
6%	3	10

Learning Outcomes	MIT	K	S	Mode of Assessment
By the end of this module, students should be able to:	Lectures	☒		SEQs
<ul style="list-style-type: none"> <li>• Define statistics and biostatistics</li> <li>• Describe the various methods of presentation of data</li> <li>• Classify and describe various sampling techniques and be able to apply that knowledge in a scenario</li> <li>• Describe the measures of central tendency and dispersion</li> <li>• Outline the characteristics of normal distribution and be able to draw a labeled diagram</li> <li>• Describe various aspects of statistical influence</li> <li>• Classify and explain the various tests of significance</li> </ul>	PBL Sessions	☑		MCQs VIVA

- Revision classes and tests will commence after course completion.
- Tentative date for Send up ( ) August, 2020.
- Send up examination will be set on the pattern of UHS Professional exam.
- **Policy for missed Research assignments/ Presentations:**
  - A. Students have to provide valid reasons for missed test and assignments.
  - B. Students must inform HOD prior to the date of scheduled assessment.
  - C. Course Director has Discretionary power over the final decision.



## **COMMUNITY & PREVENTIVE DENTISTRY**

### **Policy for Attendance**

- A. Those who show up within first 10 minutes will be marked “**Present**”
- B. Those who show up  
after 10 minutes of starting period will be marked “**Late**”
- C. 03 Lates will be considered equal to “**01 Absent**”

### **TABLE OF SPECIFICATIONS OF COMMUNITY & PREVENTIVE DENTISTRY**

Group presentations on the topics of **Community & Preventive Dentistry** have been scheduled as Research project requirement for the year. Those members, who will not be presenting, will be involved in the question answer session at the end of the presentation. All students will be graded according to their performance & marks will be added to their internal assessment.

Each group is directed to discuss & finalize the contents of their presentation with the supervisors prior to the scheduled presentations

<b>TOPICS</b>	<b>SEQs</b>	<b>MCQs</b>
Balanced diet (Nutrition in health and disease)	1	2
Dental Auxiliaries	1	1
Indices of Oral Diseases	2	4
Dental Public Health	1	7
Fluorides and Dental Caries	2	5
Epidemiology of Oral Diseases	1	0
Biostatistics	2	4
ART	1	0
Oral Cancer	1	1
Epidemiology	1	5
Prevention of Oral/ Periodontal Diseases	1	11
Health Education	1	2
Survey, Planning and Education	0	1
Behavioral Sciences	0	2
<b>TOTAL</b>	<b>15</b>	<b>45</b>



## **COMMUNITY & PREVENTIVE DENTISTRY**

### **TABLE OF SPECIFICATIONS OF COMMUNITY & PREVENTIVE DENTISTRY (OSPE)**

<b>Category</b>	<b>Learning Outcomes</b>
<b>UNOBSERVED</b>	
<b>(6 Stations)</b>	<b>Fluorosis/Oral</b>
<b>(3 marks each)</b>	<b>Diseases/Conditions</b>
<b>(3 Min each)</b>	<b>Primary Preventive Services</b>
	<b>Atraumatic Restorative Treatment</b>
	<b>Calculation (DMFT)</b>
	<b>CPITN Probe/Instruments</b>
	<b>Personal Protective Equipment/Hand Hygiene</b>
<b>OBSERVED</b>	<b>Tooth Brushing /Pocket</b>
<b>(2 Station)</b>	<b>Depth Measurement</b>
<b>(6 Marks each)</b>	
<b>(5 Min each)</b>	<b>Waste Disposal/Hand Washing/Flossing</b>



## **COMMUNITY & PREVENTIVE DENTISTRY**

### **2ND PROFESSIONAL UNIVERSITY EXAMINATION**

Total marks: 200

<b>WRITTEN EXAM= 90 Marks</b>  SEQs: 45 Marks MCQs: 45 Marks	<b>VIVA/ORAL &amp; PRACTICAL EXAMINATION= 90 Marks</b>	<b>INTERNAL ASSESSMENT= 20 Marks</b> <ul style="list-style-type: none"><li>• <u>10 Marks included in Written Exam</u> 5 Module Tests= 1.5 Marks each 1 Send up= 2.5 Marks</li><li>• <u>10 Marks included in Practical Exam</u> Attendance= 5 Marks Research/ Presentation= 2.5 Marks Attitude &amp; Demeanor= 2.5 Marks</li></ul>
---	--	---

### **Log Book / Practical Book (Mandatory)**

It is mandatory for each student to have log books with them and get it signed by their Supervisor and then countersigned by the Head of Department.



## **COMMUNITY & PREVENTIVE DENTISTRY**

### **RECOMMENDED TEXTBOOKS:**

- Fundamentals of Community & Preventive Dentistry  
*Nazli Gul Ghani, Shujaat H. Idris*
- Textbook of Community & Preventive Dentistry  
*Hiremath*
- Textbook of Preventive and Community Dentistry  
*Joseph John*

### **REFERENCE BOOKS:**

- Prevention of Oral Disease  
*Murray, Nunn, and Steele*
- Essential Dental Public Health  
*Daly, Watt, Batchelor, and Treasure*
- Dental Public Health  
*Meera Patel & Nakul*
- Community Oral Health  
*Cynthia M Pine*
- Dental Public Health  
*Prof. Dr. M.A. Soofi*
- Epidemiology  
*Mausner & Bahn*

***Prof. Dr. Nazli Shujaat***  
*Head of Department*  
*Community & Preventive Dentistry*



**COMMUNITY & PREVENTIVE DENTISTRY**