FELLOWSHIP IN COMMUNITY ORAL HEALTH (BIOSTATISTICS & RESEARCH METHODOLOGY) – FDS

ABOUT THE UNIVERSITY

Malla reddy Vishwavidyapeeth is a reputed educational institution located in Hyderabad, Telangana, India. Recognized as a deemed to be university under the distinct (existing) category, the university offers multidisciplinary programs in medical, dental, nursing, pharmaceutical sciences, engineering, and allied health sciences. The institution is committed to academic excellence, research innovation, advanced clinical training, and global academic collaborations, contributing significantly to high-quality healthcare education and professional training.

PROGRAM OVERVIEW

The Fellowship in Community Oral Health (Biostatistics & Research Methodology) (FDS) is a one-year academic-oriented fellowship designed to develop competency in public health dentistry, epidemiology, biostatistics, and research methodology. The program focuses on strengthening research aptitude, data analysis skills, evidence-based decision making, and community-oriented oral health program planning.

Key Focus Areas:

- Principles of community oral health and public health dentistry
- Epidemiology and oral disease surveillance
- Biostatistics and data analysis
- Research methodology and study design
- Scientific writing, ethics, and publication
- Oral health program planning and evaluation

The fellowship integrates theoretical instruction, practical data-handling exercises, field exposure, and supervised research work through a structured hybrid learning model.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates of the program will be able to:

- **PEO1:** Apply principles of community oral health and epidemiology in population-based settings.
- **PEO2:** Design, conduct, and analyze dental and public health research studies.
- **PEO3:** Utilize biostatistical tools for interpretation of health data and outcomes.
- **PEO4:** Apply ethical, evidence-based, and policy-oriented approaches in oral health programs.

PROGRAM OUTCOMES (POS)

1. **Public Health Competence:** Apply community oral health principles in population-based care.
2. **Research & Analytical Skills:** Design studies and analyze health data using biostatistics.
3. **Evidence-Based Practice:** Interpret scientific literature for informed decision making.
4. **Digital & Statistical Proficiency:** Use statistical software and data management tools.
5. **Critical Thinking:** Evaluate oral health programs and research outcomes.
6. **Communication Skills:** Present research findings and health education effectively.
7. **Professional & Ethical Practice:** Maintain research ethics and public health standards.
8. **Lifelong Learning & Scholarship:** Engage in continuous research and academic development.

COURSE OUTCOMES (COS)

- **CO1:** Understand principles of epidemiology and community oral health.
- **CO2:** Apply biostatistical methods for data analysis.
- **CO3:** Design research protocols and methodologies.
- **CO4:** Interpret research findings and scientific literature.
- **CO5:** Prepare research reports, theses, and publications.

PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Demonstrate competency in community-based oral health assessment and surveillance.
2. Apply biostatistics and research methodology in dental and public health research.
3. Develop and evaluate oral health programs and policies.

PROGRAM DETAILS

- **Certificate Awarded by:** Malla Reddy Vishwavidyapeeth
- **Program Duration:** One-Year Modular Fellowship
- **Mode of Delivery:** Hybrid (On-Campus + Online Learning)

ELIGIBILITY CRITERIA

- **Academic Qualification:** B.D.S. or equivalent from a recognized institution

- **Professional Registration:** Valid DCI or equivalent registration

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KEY FEATURES

- Strong emphasis on biostatistics and research methodology
- Hands-on training in data analysis and interpretation
- Exposure to community oral health programs
- Research ethics and publication guidance
- Use of statistical software (SPSS / R – introductory level)
- Ideal preparation for academics, PhD, and research careers

LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

- Community oral health concepts and epidemiology
- Statistical methods and research designs
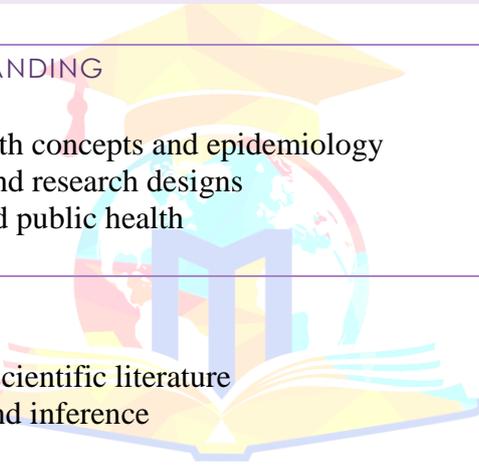- Ethics in research and public health

COGNITIVE SKILLS

- Critical appraisal of scientific literature
- Data interpretation and inference

PRACTICAL & PROFESSIONAL SKILLS

- Questionnaire design and survey execution
- Data entry, analysis, and presentation
- Research documentation and reporting

TRANSFERABLE SKILLS

- Academic writing and presentations
- Health education and communication

PROGRAM STRUCTURE – 6 MODULES

Module	Focus Area
Module 1	Fundamentals of Community Oral Health
Module 2	Epidemiology & Oral Disease Surveillance
Module 3	Biostatistics & Data Analysis
Module 4	Research Methodology & Study Design
Module 5	Research Ethics & Scientific Writing
Module 6	Oral Health Program Planning & Evaluation

CURRICULUM MODULES – THEORY

Module	Key Topics Covered	Learning Outcomes
Module 1	Public health dentistry concepts	Understand community health principles
Module 2	Incidence, prevalence, indices	Apply epidemiological tools
Module 3	Descriptive & inferential statistics	Analyze health data
Module 4	Study designs, sampling	Design research protocols
Module 5	Ethics, ICMR guidelines, writing	Publish ethical research
Module 6	Program planning, evaluation	Implement oral health programs

ELABORATED PRACTICAL COURSEWORK

1. PRACTICAL / FIELD TRAINING

- Community surveys and oral health assessments
- Index recording and data collection

2. DATA ANALYSIS TRAINING

- Data entry and statistical analysis exercises
- Interpretation of results and report preparation

3. RESEARCH PROJECT

- One supervised short-term research project
- Proposal, data analysis, and final report

4. ACADEMIC ACTIVITIES

- Journal clubs
- Research presentations

5. COMPREHENSIVE PORTFOLIO

- Community program reports
- Research documentation and analysis

ASSESSMENT & CERTIFICATION

- Written examination / assignments
- Research project evaluation
- Portfolio and logbook assessment
- Viva voce

DEPARTMENT RESPONSIBILITIES

- **Public Health Dentistry:** Academic instruction, field training, program supervision
- **Research Cell / Biostatistics Unit:** Statistical guidance and research mentorship

THIS FELLOWSHIP AIMS TO DEVELOP RESEARCH-ORIENTED, ANALYTICALLY SKILLED, AND COMMUNITY-FOCUSED ORAL HEALTH PROFESSIONALS.

NAAC / UGC ANNEXURES

ANNEXURE I: PEO–PO MAPPING

PEO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
PEO1	✓	✓		✓	✓	✓		
PEO2	✓	✓	✓	✓	✓			
PEO3		✓	✓	✓	✓	✓		
PEO4		✓		✓	✓	✓	✓	✓

ANNEXURE II: PO–PSO MAPPING

PO / PSO	PSO1	PSO2	PSO3
PO1	✓	✓	
PO2	✓	✓	
PO3	✓	✓	
PO4		✓	✓
PO5	✓	✓	✓
PO6	✓		✓
PO7			✓
PO8			✓

ANNEXURE III: CO–PO–PSO MAPPING MATRIX

CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	✓	✓		✓					✓		✓
CO2	✓	✓	✓		✓				✓	✓	
CO3	✓	✓	✓	✓	✓				✓	✓	✓
CO4		✓	✓	✓	✓	✓			✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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PEO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
PEO1	✓	✓		✓	✓	✓		
PEO2	✓	✓	✓	✓	✓			
PEO3		✓	✓	✓	✓			
PEO4				✓	✓	✓	✓	✓

ANNEXURE II: PO–PSO MAPPING

PO / PSO	PSO1	PSO2	PSO3
PO1	✓	✓	
PO2	✓	✓	
PO3	✓	✓	
PO4		✓	✓
PO5	✓	✓	✓
PO6	✓		✓
PO7			✓
PO8			✓

ANNEXURE III: CO–PO–PSO MAPPING MATRIX

CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	✓	✓							✓		✓
CO2	✓	✓	✓		✓				✓	✓	
CO3	✓	✓	✓	✓	✓				✓	✓	✓
CO4		✓	✓	✓	✓	✓			✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓