

**Prospectus 2012-2013**

**Directorate of Medical Education  
Government of Kerala.**

**M.Phil Course in Clinical  
Epidemiology**

*At*

**Clinical Epidemiology Resource & Training Centre  
II<sup>nd</sup> Floor, Principal's Office Building  
Medical College, Thiruvananthapuram**

**Affiliated to  
Kerala University of Health Sciences**

## **Clinical Epidemiology Resource & Training Centre (CERTC)**

CERTC is a knowledge management centre in clinical epidemiology; Evidence based medicine, clinical health economics and related health social sciences.

CERTC is a registered society functioning under the Principal, Medical College, Trivandrum, with senior members of the medical college faculty who are trained and qualified epidemiologists. This centre was initiated as a philanthropic venture by the International Clinical Epidemiology Network (INCLIN) funded by USAID and this course was originally supported by this agency. Since last four years the centre is being run with the support of Government of Kerala and overheads from Intramural research projects.

Until so far the centre has been instrumental in many policy changes in the state and the country, (Few examples are The India SAFE study projects on family violence which led to the enactment of Domestic violence Act in India, the IBIS study which contributed to the development of policy for antibiotic therapy and vaccine use in the country. The centre also contributed significantly to guideline development for maternal death audit in the state.

There are fifty degree holders of M.Phil Clinical epidemiology, trained from the centre. Some are working now as epidemiologists and others are doing their service as teachers and post graduate guides in the medical colleges of Kerala.

Dr.Stephen Walter, Dr.Henry Glick, Dr. Mark Nicher , Dr.Fletcher & Dr Susanna Fletcher are some among the few international faculty who visited this centre and gave valuable advice and suggestions for the growth of this centre in the past.

## **Description of the course**

The M.Phil Course in Clinical Epidemiology is a regular course conducted in this center. This is a post MD course identical to the super-specialty degree in research methodology and also other similar epidemiology courses in international schools like that in Macmaster, UPENN, Harward etc. The goal of the course is to transform the clinician community to researchers and rational practitioners through evidence based medicine practice, adherence to high standards of professionalism and clinical governance. The successful candidates after the course are expected to be primary researchers of high quality in their respective clinical fields, expected to be placed in posts of research planners and managers, and to provide consultancy in health science research. They are also expected to play key roles in advocacy for public health and good quality research including clinical trials

The course was conducted under the university of Kerala and as per the recent Govt. orders (GO (Rt) No. 996/2012/H&FWD dated 23-3-2012) is now getting affiliated to KUHAS. There are 10 already approved seats for the course and the course is currently envisaged as an in-service course, The selection and conduct of the course is by Director of Medical Education of Kerala through CERTC and the examination is conducted by the Kerala University of Health Sciences.

### **The objectives of the course are**

- To equip clinical faculty with methods in health science research
- To popularize the concept of quality in health science research
- To generate a team of professionals capable of providing consultancy in health science research methodology.

### **Who shall be benefited from the course?**

- Medical teachers, clinicians & faculty in allied disciplines, who have aptitude & commitment to medical research.
- Faculty members who wish to become investigators of research projects

- Faculty members who want to become investigators of clinical trials
- Clinicians who want to become health care managers

**Eligibility for admission:** Those who have passed MS/MD in modern medicine, approved by the Kerala university of Health Sciences or identical post graduate degrees in nursing, pharmacy and dental sciences in modern medicine. The candidates should not be aged more than **forty five years** on the forthcoming date of December 31<sup>st</sup>. There is a system of reservation among the various departments of health like DME, DHS etc as follows.

1. From faculty of DME Medical departments: 3 seats
  2. From faculty of DME dental/pharmacy/Nursing departments: 2  
(To be decided based on rotation)
  3. For doctors from DHS and other general services including RCC/MCC (For those who have opted clinical specialty cadre in health services): 2 seats
  4. Open seats (for all including private medical institutions and also other states) 3 seats
- In case sufficient no. of candidates are not available any category those seats will be considered in category 1; If candidates are not available in category, those seats will be considered in category 2; If candidates are not available in category 2 those seats will be considered in category 3; If candidates are not available in category 3 those seats will be considered in category 4.

**Subjects:** M.Phil Clinical Epidemiology including Health system Epidemiology and Health Systems Management, Health social science, Clinical health economics

**Course plan:** Distance Education for Two Years with four semesters:

**Two year course: Brief outline of the course**

First three months of first semester: contact classes in core subjects

Consolidation at the end of each month at the CERTC about the months learning activity and doubt clearing for one full day (Holidays for the parent department)

Consolidation at the end of each semester at the CERTC about the semester's learning activity and doubt clearing for two full days (Holidays for the parent department second Saturday and Sunday preferably)

Protocol development during the first year after contact classes

Protocol implementation and project work during the second year after

### **Details of module based learning activities**

#### **First year**

First three months Contact classes and lectures in the core subjects. (Please see detailed syllabus in the appendix)

Bio Statistics, Epidemiology, Health Social Sciences, Bio computing, Bioethics, Clinical health economics. This will be module based and there will be five modules

Module 1: Introduction to Research methodology

Module 2: Basic epidemiology and clinical epidemiology in detail

Module 3: Biostatistics

Module 4: Health social sciences and Clinical health economics

Module 5: Bioethics and Biocomputing

#### **Second year: 4 Modules**

Module 1 Evidence based medicine

Module 2 Health management

Module 3 Health systems epidemiology including clinical governance, rational drug use and treatment guidelines, clinical audit, infection control, patient safety, health policy analysis for clinicians

Module 4: Current topics in epidemiology, Genetic epidemiology, social epidemiology (Social determinants as relevant for clinician),

**Structure of the module:** Each module will begin with an introduction to the particular subject in relation to specific research methodologies in clinical fields and specialties to provide a clear conceptual framework for doing research in their day today ward work Participants will understand a variety of approaches to research (both quantitative and qualitative) and assess their advantages and disadvantages for particular research problems. Data collection and data analysis techniques will be introduced, with students conducting practical exercises to reinforce learning. The participant's critical capacity to read and understand complex article and their attitude will be assessed during the interactive sessions Finally, each student will be helped for development of a specific research proposal for the student's case study or dissertation or thesis work. There will be mentoring from the inception and individual level tutoring with delegation of each candidate to one faculty.

The brief plan of each module is

Introduction

Learning objectives

Content area (study unit) Theoretical aspects (Definition, features, description, applications) followed by practical exercise and self-practice problems. Similarly six units in each module

References

**Project (Thesis) work:** The planning of this will be started from the first year after the contact classes. The candidate will identify a suitable mentor from the parent department who will guide in the subject along with the methodology guide from CERTC. The topic will be identified by the candidate in consultation with both guides. During the first year the topic will be developed in to a full protocol through series of interactions and consultations with the guides and other relevant faculty. This protocol need to be submitted during the year end examination of first year and presented before the faculty for approval.

During the second year the candidate will do the thesis work (six months data collection, three months analysis and three months research communication. The candidate should submit a structured abstract and the final degree will be awarded only after the acceptance of project work for publication in indexed journal.

**Assessment :(Examinations):**

**Formative evaluations :** This is by periodic objective tests, periodic tests through web platforms, reports by the thesis guide and mentor, assessment of extra interest taken by candidate in matters of research or health policy and final opinion poll by the whole faculty on overall academic performance of the candidate.

**Summative evaluations**

There will be three examinations

- 1) Say examination at the end of first year along with presentation of protocol
- 2) Internal assessment at end of second year and internal presentation of thesis
- 3) Final summative examination by KUHAS after submission of the thesis

**Authority Responsible for conducting the course:** Director of Medical Education.

Course affiliation University of Kerala health sciences KUHS)

**Study Centre for the course:** Clinical Epidemiology Resource & Training Centre,  
2<sup>nd</sup> Floor, Principal's Office Building, Medical College, Thiruvananthapuram.

Phone 0471-2448825 Fax 04712448825 email certc @vsnl.com website

### **Fee Structure**

Total Fees Rs 30, 000/- per Candidate per year. Fees for examination is to be separately remitted to the university.

Annual Fees Rs.30, 000/- to be remitted in three installments and first installment at the commencement of the course. The exam fees should be remitted to the University as per the rules of Kerala University of Health Sciences.

**Total seats-** 10 seats

Faculty for the course

All current faculty of the CERTC and invited faculty

Guest faculty: Dr Vijayakumar, HOD Community medicine

Sri SM Nair, Asso. Prof. Medical statistics (Retd.)

Dr Remadevi Professor, Medical sociology (Retd.)

Dr Ravindran P, Prof of Respiratory medicine (Retd)

Dr Narendranathan, Prof of Medical Gastro (Retd)

Dr KT Shenoy, Prof of Medical Gastro (Retd)

Dr Joshy Prof of Respiratory medicine (Retd)

Dr Kanda Muthan, Prof of Medical Statistics (Retd)

Dr Sudheendra Ghosh Prof of Respiratory medicine (Retd)

Dr KR John, Prof. Community Medicine (Retd)

Dr Jayaprakash Muliyl Prof. Community Medicine (Retd)

Dr VK Ramankutty Prof. Community Medicine, ACHSS, SCTIMST

Dr Sankasarma Prof. Biostatistics, ACHSS, SCTIMST

Sri Shaji SV Faculty in Biocomputing, NISH, Thiruvananthapuram

### **Panel of proposed external examiners:**

Dr Shally Aswathi Prof. Pediatrics, King George Medical College Lucknow

Dr Narendra K arora, President INCLIN, Delhi

Dr Dipti Jain Prof. Pediatrics, Govt Medical college Nagpur

Dr RM Pandey Pandey Prof. Medical Statistics AIIMS Delhi

Dr Abraham Peedikayil Professor, Obstetrics and Gynec, CMC Vellore