

# Indian Institute of Public Health – Delhi

# Public Health Foundation of India

Training Venue: Plot 47, Sector 44, Institutional area, Near HUDA City Centre Metro Station, Gurugram-122002, Haryana, India



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Workshop Series 2021-22

**Application of Econometrics in Health Policy Analysis** 

Feb 21 – 25, 2022

Last date of registration: 7<sup>th</sup> Feb, 2022

Course Director: Prof. Sanjay Zodpey, Director, Indian Institute of Public Health-Delhi

Course Coordinator: Dr. Anup Karan, Additional Professor, Indian Institute of Public Health-Delhi

## Registration Form: link: http://tof.phfi.org/

## About the course

This five-day course on "Econometrics for Health Policy" (EHP) will serve as an introduction to some of the concepts and principles in the economics of health and health care. The course focuses on developing the theoretical basis and practical application of the most common empirical issues faced by researchers in health policy observational research. Thanks to the increasing availability of detailed micro-data, the EHP course aims to develop specific methodological and computational skills among the participants enabling them to handle most pressing issues in health and healthcare policy analysis. It has two main objectives: (1) to develop skills of econometric analysis in linking economic behavioural models and quantitative analysis for addressing issues related health policy; (2) to develop abilities among the participants to understand and evaluate critically other existing econometric studies.

The course is designed especially for healthcare professionals, doctoral and advanced master level students, MD students, researchers, and CEOs interested in pursuing a high-stake career in the field healthcare policy analysis. A basic knowledge of statistics including regression analysis, Ordinary Least Square (OLS), is a pre-requisite for attending this course.

Primarily will be taught through lectures and practical exercises. Real-time data will be used in lectures and demonstration of analysis. Problem-solving classes will familiarise participants with concepts and techniques through a hands-on approach. Problem sheets will be provided to encourage self-study.

#### Contents

- Review of Ordinary Least Square (OLS) regression analysis; Assumptions of OLS, Identification of econometric issues causing biases in OLS estimates;
- Understanding and addressing multi-collinearity and heteroscedasticity issues;
- Maximum Likelihood Estimation (MLE); When and why use logit-probit models; Application to healthcare (healthcare financing) analysis;
- Handling "Selection Bias" Two-Part Model (TPM), Heckman selection model; Application to healthcare (healthcare financing) analysis
- Handling "Endogeniety" in econometric analysis Instrumental variable approach; Application to healthcare (healthcare financing) analysis.

#### **About the Faculty**

Dr. Anup Karan is a full-time faculty at the institute with Master degree in economics and D. Phil in public health (health economics) from the University of Oxford. He has more than 20 years of teaching and research experience in the areas of health, poverty and employment and their inter-linkages. Dr. Karan has been working in the area of impact evaluation, equity in healthcare financing and financial risk protection of households and has published papers on these topics in national and international journals of repute. He has been also involved in online distance learning academic programs and workshops at the institute.

#### Who should attend?

The course is designed for those who need to conduct higher levels of econometric analysis in health/healthcare/ healthcare financing, and those who need to understand in some depth the issues that health economists face when performing statistical/econometric analyses in the health sector. Since the course offers practical methods to conduct these analyses, researchers and commercial and academic organizations concerned with causal relationships in the health sector would be benefited by developing analytical skills during the course.

#### How to Apply?

Interested participants may Apply Online and submit online registration form or write to email at trainings@iiphd.org. The fee will be submitted by E-transfer, the bank details for E-transfer will be shared upon applying for the workshop.

#### **Registration Fee:**

Indian National: 12500 INR per participant, Foreign National: 25000 INR per participant

The registration fee includes course kit, lunch and tea/coffee with snacks. The boarding and lodging expenses will be arranged and borne by the participants. However, the organizers will be able to provide a list of hotels/ guest houses nearby the institute upon request.

#### Note:

- Participants are requested to carry their own laptops
- We have limited seats available, registrations will be confirmed on first come first serve basis

Disclaimer: In case of cancellation of the workshop due to any unforeseen circumstances like natural calamities, imposition of curfew declared by government, any emergency situation at the institute or any medical emergency of the workshop teaching staff, the full registration fee shall be refunded to the candidates. However, other costs like travel bookings and stay arrangements incurred by the participant shall not be borne by the institute.