



**GEOHealth India**  
Global Environmental &  
Occupational Health India



Centre for Chronic Disease Control



WHO Collaborating Centre for  
Surveillance, Capacity building  
and Translational Research in  
Cardio-Metabolic Diseases



PUBLIC  
HEALTH  
FOUNDATION  
OF INDIA



**HARVARD**  
**T.H. CHAN**  
SCHOOL OF PUBLIC HEALTH

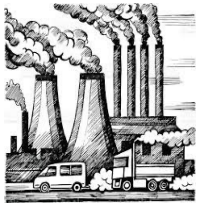


**Karolinska**  
**Institutet**

CCDC- PHFI- Harvard T.H. Chan School of Public Health through GEOHealth Hub for Research and Capacity Building are Organising a course on

# Environmental Epidemiology and Cardiovascular Health

25<sup>th</sup>, 26<sup>th</sup>, 28<sup>th</sup> and –29<sup>th</sup> November 2022, New Delhi, India



## Faculty

Assoc. Prof. Petter Ljungman, KI, Sweden  
Dr Massimo Stafoggia, KI, Sweden  
Prof Dorairaj Prabhakaran, CCDC, India  
Dr Mikael Ögren, Gothenburg Univ, Sweden  
Addl. Prof. Poornima Prabhakaran, CCDC & PHFI, India

## Co-faculty

Dr Jeroen de Bont, KI, Sweden  
Dr Åsa Persson, KI, Sweden  
Dr Siddhartha Mandal, CCDC, India  
Dr Suganthi Jaganathan, CCDC, India  
Mr Ajit Rajiva, CCDC, India

## Course Objectives

- Knowledge of main environmental exposures to cardiovascular health, including air pollution, air temperature, green spaces and noise
- To apply epidemiologic designs and methods in designing studies of environmental exposures and cardiovascular outcomes
- Provide practical training in performing specific epidemiological analyses and develop your own research proposal in environmental epidemiology

## Basic Layout

- The course will cover environmental exposures such as air pollution, temperature, greenspace and noise
- Mixture of theoretical lectures and practical workshops with hands-on statistical analyses (using R)
- Participants will develop their own study proposal and receive feedback

## Pre-requisites

- Knowledge in basic epidemiology & biostatistics
- Working knowledge of R Statistical Package will be beneficial
- Prior to the course, enrolees will be sent an introduction to R package with exercises that will help participants get familiar with R

## Course Information

Dates: 25, 26, 28, 29 November 2022, 9:00 AM –5:00 PM (IST)

Public Health Foundation of India, Plot No.47, Sector 44, Gurgaon, Haryana-122002, India

More information: please contact Ms Anubrtai Dutta <anubrati@ccdcindia.org>

## Who should attend?

This course is designed for researchers who have Postgraduate degree in Public Health or related discipline and working in environmental health and who want to deepen and extend their knowledge.

**Link to register:** <https://forms.gle/WgBaY7y5XEz1TV3fA>

**Deadline for applications:** 12 Noon, 15<sup>th</sup> October 2022 [Limited intake]

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| Draft outline for the course                                       |   |  |   |
|--|---|--|---|
| Day 1 [25-11-2022]   | Day 2 [26-11-2022]  | Day 3 [28-11-2022]   | Day 4 [29-11-2022]  |
| <b>Air pollution</b>   | <b>Air pollution</b>  | <b>Greenness and Temperature</b>   | <b>Noise</b>  |
| Basic cardiology, Types of CVD, risk factors for CVD               | Air Pollution: Methods for assessing long-term exposure (LUR, Dispersion models, hybrid satellite models) | Ambient temperature and CVD, Mechanisms and studies                          | Road traffic noise and CVD  |
| Air pollution, what is it and how does it spread? Sources?         | Long-term air pollution and CVD   | Workshop   | Aircraft and railway noise and CVD  |
| Air pollution and CVD, experimental evidence, mechanistic pathways | Study designs for long-term studies (include bias, confounding limitations)                               | Greenness and CVD, mechanisms and studies                                    | Interactions of multiple exposures and CVD  |
| Short-term air pollution exposure and triggering of CVD outcomes I | Health impact assessment, effect of policies  | Workshop   | Multiple effects of intervention, examples in literature, natural experiments etc |
| Study designs for short-term studies                               | Workshop  | What is transportation noise? Generation, propagation and assessment methods | Presentations of group proposals  |
| Workshop short-term AP studies                                     | Workshop  | Preparation of group proposals   | Presentations of group proposals  |
| Workshop short-term AP studies                                     | Workshop  | Preparation of group proposals   | Presentations of group proposals  |