



ISCEP

International Society for Cardiovascular
Disease Epidemiology and Prevention

Report on the 52nd Ten Day International Teaching Seminar on Cardiovascular Disease Epidemiology and Prevention, Kochi, India, December 11 – December 22 2022

The glorious sunshine that greeted fellows and faculty on arrival in Kochi for the 52nd Ten Day International Teaching Seminar was only surpassed by the warmth of the welcome from our hosts in India. This was the first in-person seminar held after the long hiatus due to the COVID pandemic and we much appreciated the opportunity to be together. This was the fifth time that the seminar has been held in India, which has now hosted more International Teaching seminars than any other country.

Professor Dorairaj Prabhakaran, Director of the Centre for Chronic Disease Control in India, and Professor Krishna Kumar, Head of Paediatric Cardiology at the Amrita Institute of Medical Sciences School of Medicine, co-hosts of the seminar, welcomed seminar participants. We were also delighted to have Professor Fausto Pinto, Chair of the World Heart Federation who told us of the role of World Heart Federation in global advocacy for prevention of cardiovascular diseases. Chronic diseases such as heart disease and stroke are leading causes of death and disability world wide and particularly so in countries such as India going through health transitions where the burden of chronic diseases has reached epidemic proportions. Urgent and sustained efforts are needed to control this epidemic. The 52nd Ten Day Seminar was a continuation of efforts to build capacity in the in epidemiology and prevention of cardiovascular diseases. The seminar was formally opened with a symbolic lighting of candles by the faculty followed by a performance of traditional Kerala classical dancing.

The daily seminar programme includes four one hour lectures. The lectures start off with the principles of epidemiology including concepts and methods of investigation, inference, followed by the major findings of cardiovascular epidemiology, and then the application and implementation of these findings to goals, strategies, and assessment of cardiovascular disease prevention programmes. A highlight was a special lecture from Professor Krishna Kumar on Neglected Cardiovascular diseases which reminded us of the global importance of these conditions and strategies to address the problem. Particularly inspiring was the example of Kerala, which between 2016 and 2020 reported a lowering of its infant mortality rate from 12 to 7 per 1000 through a concerted training, prenatal screening and treatment programme, with lessons learnt for future scalability and application.

A concurrent series of lectures on biostatistics aims to provide an introduction to key biostatistical concepts and methods used in epidemiologic research, covering issues such as sample size and power calculations, multiple regression and survival analyses. Our statistics faculty also demonstrated timely practical applications including plotting fellows' predictions of the World Cup final match statistics.

Group work is a central feature of the seminar. Fellows are allocated to four groups which meet daily with faculty facilitators. The small groups encourage more active individual participation and help fellows to work together to address the practical problems of doing research to answer real questions. In the first week, group work aimed to consolidate material in the lectures with practical exercises using data to examine concepts such as the use of routinely collected hospital and mortality data and measures of risk. This was followed by a series of reviews of the literature using published papers with different study designs discussed in the preceding lectures. These illustrated the use of various study designs and their strengths and limitations, as well as introducing topics in cardiovascular disease. A cross sectional survey examined the association between frequency of laughter and heart disease and stroke in elderly Japanese men and women with discussion about causal inference in cross sectional studies. A case control study of phenylpropanolamine and risk of haemorrhagic stroke illustrated how some questions could only be addressed using a case control design and despite the limitations of such designs, that findings could still influence policies internationally. A cohort study explored the relationship between daily step counts and intensity with cardiovascular disease incidence and mortality, raising issues about measurement of exposures and outcomes in large population studies. A cluster

randomized trial of salt substitution over five years on cardiovascular events and deaths in villages in rural China stimulated discussion about trial designs including cluster randomization.

In the second week, the groups are assigned to prepare a study protocol using different study designs: cross sectional, case control, prospective and trial. One aim is to highlight the strengths and limitations of different study designs. Participants learn to work as a team to confront the practical problems of doing research to answer real questions. The question this year was: "Does rice consumption increase risk of diabetes?" The groups took on the challenges of such a topic as to how rice consumption might be defined and measured, what populations in which to conduct such studies, and how diabetes might be ascertained and defined. Group discussions continued into the afternoon breaks and late night sessions with intense arguments for and against different options. On the final day of the seminar, each group presented its proposed study design protocol to the others with spirited exchange of criticisms and comments and defence of choices made. The range of approaches as to how rice consumption might be assessed and measured, and what populations might be studied, illustrated the possibilities of epidemiologic studies and potential relevance for clinical and public health policy. This was followed by a final summing up of some of the major issues in epidemiological research. The quality of the presentations demonstrated how much had been achieved in a relatively short time. Many of the questions and study designs discussed in previous seminars have been subsequently developed by fellows into full research projects, often with international collaboration with other seminar fellows and plans were also being made this time to follow up some ideas which might be particularly relevant to India.

Fellows and faculty also visited the Amrita Institute of Medical Sciences and Hospital for a one day Research Workshop on developing grant funded research proposals. Six research proposals were developed by clinicians and health researchers at Amrita Institute; fellows were allocated to one of six groups to provide feedback for the proposals which were presented at the Workshop. A plenary lecture by Professor Salim Yusuf on the Nuts and Bolts of writing a grant proposal as well as faculty panel discussed the challenges and issues in developing research to address questions arising in clinical practice.

Kerala, with its lush green landscapes, coastal waters and biodiversity, is known as "God's Own Country" and our hosts also ensured that we experienced its rich culture and history as much as possible in a packed schedule. We spent one day of lectures on a houseboat on the Kerala backwaters passing through rice and coconut plantations and fishing villages followed by a spectacular feast of Keralan specialities. We visited the Kumbalangi Eco Village to learn about traditional sustainable village life fishing and making full use of the coconut in food and building including thatching, coir and basket making. We had a sense of its extensive history in visits to the oldest Jewish Paradesi Synagogue in India and the adjacent Dutch Palace in Mattancherry as well as a tour of Fort Kochi. Our hosts presented all fellows and faculty with the traditional Keralan dress of saris for women and mundis for men which produced much merriment learning to drape correctly assisted by our Indian friends. Early morning yoga, water polo contests and an evening disco also ensured fun and physical activity. One evening was set aside to watch the 2022 World Cup Football final, with enthusiastic support from our international fellows and faculty including three from Argentina.

The fifty second seminar has continued to build on the tradition of this event, which aims to accomplish not just the training of an international corps of people working on the prevention of cardiovascular disease and improvement of health for all but the making of bridges across countries and cultures through peaceful international scientific cooperation. This seminar series has now trained over 2000 fellows from over 100 countries, many of whom are now leaders in the field. Each seminar adds to the strong network of people working together for common aims.

Many individuals and organisations have made this seminar possible. Thanks must be expressed first and foremost to our hosts, Professor Dorairaj Prabhakaran and Professor Krishna Kumar and their colleagues and the most generous support from Centre for Control of Chronic Diseases, India, and the Amrita Institute of Medical Sciences. We also thank the other organizations which have sponsored the seminar and supported fellows' and faculty participation.

Report prepared by Kay-Tee Khaw, on behalf of the Faculty, 52nd Seminar.

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