

28th Residential Summer Course – European Educational Programme in Epidemiology

22 June – 10 July 2015

From my own point of view, this residential course was a wonderful and useful learning experience that provided me with a once in a life-time opportunity of combining education, social, and cultural life in Florence.

Though the course program was very intensive, with daily long day sessions from 8:30 to 18:00, time flew every day because the topics were very interesting, and the teachers held good lectures.

During the first week, introduction to study design and basic principles on statistical methods in epidemiology were taught. We learned to use STATA statistical software package in an interactive way.

During the afternoon sessions of the second week we performed computer analysis of a case-control study of bladder cancer in different groups. To study the associations between contaminated water and the consequent risk of developing bladder cancer was the aim of my group assignment. This assignment was very useful, because we had to decide a strategy for the analyses, and then perform them by ourselves. We learned about the importance of testing for effect modification, before investigating for confounding. After that, we had to evaluate exposure-response trends, and finally we summarized and reported the main findings in a plenary session. Our group presentation won a prize as the second best presentation, among 10 different groups (Picture 1).



During the third week we could take different special modules (Advanced statistical topics, Key and advanced concepts in epidemiology, environmental epidemiology, an epidemiologic perspective of fertility and

pregnancy, and Clinical Epidemiology). I personally took the modules about key and advanced concepts in epidemiology during the morning, and clinical epidemiology during the afternoon. The first module helped me to better understand about "counterfactual causal inference" and the need for a pluralistic view of causality in epidemiology. Moreover, I learnt that philosophy in epidemiology sharpens our thinking about causal inference, which is at the end a judgment under uncertainty; and that counterfactual theories do not proof anything, but may be relevant for thinking during the design of the study. Finally, I learnt that we cannot make assumptions on causal inference from observational studies due to the lack of exchangeability, and positivity.

Overall, these three weeks provided me with methodological and epistemological tools to better understand the complexities within epidemiological and observational studies. This unique and inspiring learning experience has been of a great contribution to my Ph.D project which deals with work-related skin problems in the general working population of Norway, and the association between occupation and the risk of skin cancer in the Nordic countries.

I would highly recommend to take this course to all those taking a Ph.D. based on observational data from a general population.



Jose Hernán Alfonso, MD

Dep. Of Occupational Medicine and Epidemiology

National Institute of Occupational Health, Oslo