

Title of the course: INTH921 Experimental Epidemiology Spring 2018

Institution: Center for International Health, University of Bergen

Dates: 26th February to 16th March, 2018

Student: Benjamin Kamala (University of Stavanger)

Course content and learning outcomes

This course addressed critical methodological aspects of clinical and field trials and a special effort was made to address trials that aims at measuring the impact of relevant interventions against poverty related diseases, for instance HIV infection, diarrhea and pneumonia.

The following were covered in the presentations: General principles of field trials, literature review: randomization & blinding, review of basic statistics, cluster design, data management and study implementation, interaction & confounding, effect measures, training, quality control, interpretation of negative trials and ethical aspects of clinical trials in developing countries.

Learning outcomes

Knowledge

- Demonstrates understanding of the principles of clinical and field trials,
- Understands the principles behind adjustment for repeated measurement of outcomes in the same individuals

Skills

- Genuinely contribute to the planning and conduct of clinical and field trials in accordance with Good Clinical Practice (GCP) and the highest ethical principles
- Analyze clinical and field trial data-sets, also from community-randomized trials
- Be able to identify and adjust for any confounding effect (mainly relevant for trials with limited sample size).
- Critically interpret published results from clinical/field trials, write a competitive research grant proposal for funding of a clinical/field trial.
- Be able to write the trial reports using CONSORT guidelines

Relevance to my PhD program:

The course was well organized as it gave basic principles and understanding of the clinical trials including different stages of clinical trials from drug development (Stage 1 to post market research Stage 4). The course gave hands-on training on practices and challenges that may be happening in the field. It is embedded with group assignments and discussions which improves the learning process. As an epidemiologist, academician and researcher the course gave me

understanding of advanced epidemiological concepts especially when dealing with human subject implementation research.

Different epidemiological concepts such as confounding variables, modifiers, interaction and others were discussed in details on when and how to report and interpret them. The knowledge gained from the course is of great importance to my PhD program as I have completed data collection from clinical trial project and started analyzing and writing reports. Moreover in academic duties I will be able to describe different epidemiological concepts in more clear terms. Moreover the knowledge gained will be beneficial to my research team at my institutions in analyzing and interpreting the available data.

Training Feedback:

The course was well organized and delivery of the materials and lectures were comprehensive and delivered by competent instructors. Students who want to take this course must have basic understanding of basic statistics such as bivariate analysis and liner regression. Moreover this course is given back to back with a course on Observational Epidemiology which is a good idea to take before doing the experimental Epidemiology. The basic principles needed are knowledge on different study designs; cohort studies, case-control and cross sectional studies. The course is very intense and a student in need must attend all three weeks for better understanding and comprehension. The course is highly recommended course for those who are planning of implementing interventions on human subjects.