

Introduction to Epidemiology and Study Designs

Goal

According to the dictionary of epidemiology, «Epidemiology is the study of the distribution and determinants of health-related states or events in specified populations and the application of this study to control of health problems». In this course module we will cover basic epidemiologic terms and definitions, as well as the main epidemiologic quantities we encounter in public health related publications and in clinical studies. Furthermore, you will learn to identify the study designs most often used in population-based and clinical epidemiology.

Contents

- Basic terms in demography (sex and age structure of the population, birth and death rates, life expectancy and infant mortality)
- Study designs we cover: Cross-sectional, cohort and case-control studies, intervention studies and diagnostic accuracy studies
- Basic quantities in epidemiology: Prevalence, incidence rates (crude and age-adjusted), risk ratio, risk difference, number needed to treat, odds ratio, sensitivity, specificity

Methods

The course consists of two days of work in class and completion of tasks between the two days. The course follows in part the textbook «Essential Epidemiology 3rd edition (2017)» by Penny Webb and co-authors. The book will be sent to the course participants in advance and some reading (about 100 pages) will be necessary before the first day and between the two course days. The course material will be made available on a password-protected course homepage (<http://intro-epi.ispmbern.ch/>).

In total 12 hours of off-class work and tasks are expected between May 24 and May 26.

Exam

Written exam during the course

Preparation and postprocessing

12 hours preparation, no postprocessing

12 hours of off class work between the two course days

ECTS Credits

1 ECTS credit

Organisation

Institut für Sozial- und Präventivmedizin der Universität Bern

Coordination of course

Prof. Dr. med. Claudia Kuehni, Institut für Sozial- und Präventivmedizin der Universität Bern

Prof. Dr. Marcel Zwahlen, Institut für Sozial- und Präventivmedizin der Universität Bern

Dates

23 and 27 May 2019

Location

Bern

Fees

Fr. 1100.-

Registration deadline

23 March 2019