elevate your health knowledge

Survival Analysis

offered by the MSc Epidemiology Program
of the UMC Utrecht and Utrecht University

Survival data, or more generally, time-to-event data (where the "event" can be death, disease, recovery, relapse or another outcome), is frequently encountered in epidemiologic studies. Censoring is a problem characteristic to most survival data, and requires special data analytic techniques.

This online course will give an introduction to survival analysis and cover many of the types of survival data and analysis techniques regularly encountered in epidemiologic research. The necessary statistical theory will be presented, but the course will focus on practical examples, with an emphasis on matching data analysis to the research question at hand. Lab sessions will give students the opportunity to apply the theory to real datasets using the free statistical software R.

Learning objectives

At the end of the Donkey Health course, you will be able to:

- √ recognize or describe the type of problem addressed by a survival analysis
- √ define and recognize censored data
- √ define and interpret a survivor function and a hazard function, and describe their relation
- √ recognize the computer printout from a Cox proportional hazards model, a stratified Cox model, and a Cox model extended for time-dependent covariates
- √ state the meaning of the proportional hazards assumption and know how to check this assumption
- √ recognize which survival analysis technique is appropriate for a given research question and dataset
- √ interpret the computer printout for survival models, including hazard ratios, hypothesis testing, and confidence intervals

For whom?

- √ Researchers
- √ PhD candidates
- √ Medical Doctors

Facts

- √ 4,5 ECTS
- √ 20 Nov 2017 to 10 Dec 2017
- √ Online
- √ 14 hrs/week workload
- √ 785 Euros
- √ English
- √ Web lectures, exercises, group discussions

You may be also interested in

- √ Introduction to Statistics
- √ Classical Methods in Data Analysis
- √ Modern Methods in Data Analysis

Utrecht University

Visit our course page to find out more about this course.