Biostatistics II
Regression Models in Clinical Epidemiology

Facilitators
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Institute of Social and Preventive Medicine, University Bern

Description
In Biostatistics II you will learn to apply the acquired knowledge that was introduced in the module basic biostatistics in more advanced settings. Instead of simple calculations using a pocket calculator, you now will use the statistical software package Stata® in order to perform analysis on your own with your license for Stata 15.

Objectives
To extend your toolbox for statistical analysis to settings in which regressions are used. You will become familiar with one statistical software that helps you to perform more refined statistical analyses.
- Participants are able to provide descriptive statistics graphical summaries of concrete data sets
- They can use Stata to provide summary estimates and 95% CIs, and to conduct hypothesis testing in certain situations
- Participants are able to perform logistic and linear regression analyses
- Participants are able to perform basic survival and time-to-event analyses (analysis of incident rates, obtaining Kaplan-Meier survival estimates, Cox proportional hazards regression)

In addition to the techniques of statistical analyses, the participants will have to be able to state specific facts about epidemiologic terms, and to comment findings of epidemiological studies. The participants will need to show ability to identify the main study design alternatives and how they relate to each other.

Dates
2022, Jan 26-28/ April 4-6/ April 8 (optional test exam)/ April 29 (exam)

Equipment
Participants must bring their own laptops on which Stata is installed.

Contact:
Course coordination: Ann Walser
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<table>
<thead>
<tr>
<th>Course Structure</th>
<th>The programme of the module contains a mix of traditional lectures as well as group work and concrete practicals in which the participants apply the theoretical concepts provided in the lectures using Stata statistical software.</th>
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</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Exam</td>
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<tr>
<td>Credits</td>
<td><strong>3 ECTS</strong></td>
</tr>
<tr>
<td>Contact</td>
<td><strong>Contact: 56 h, Homework: 4h</strong></td>
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<tr>
<td></td>
<td><em>(1 ECTS corresponds to appr. 25-30 hours workload)</em></td>
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<tr>
<td>Location</td>
<td>ISPM Bern, Mittelstrasse 43, 3012 Bern, Room tbd</td>
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