Swiss Epidemiology Winter School 2026

UNIVERSITÄT BERN

Introduction to cost-effectiveness analysis with applications in R

19 - 21 January 2026

Faculty	**Dr. Mark Pletscher** Novartis Pharma AG, Switzerland **Dr. Niklaus Meier** Institute of Health Economics and Health Policy, Bern University of Applied Sciences, Switzerland **Prof. Georgia Salanti** Institute of Social and Preventive Medicine, University of Bern, Switzerland
Venue	**CH – 3823 Wengen | SWITZERLAND** Bühlstube

Course description

Cost-effectiveness analysis of healthcare interventions is an essential tool for informing reimbursement decisions, healthcare policy and treatment guidelines. The goal of cost-effectiveness analysis is to compare costs and health effects of alternative uses of scarce resources to guide the development, implementation and funding of medical technologies and policy interventions.

This course aims to give an overview of fundamental concepts of cost-effectiveness analysis and to introduce basic cost-effectiveness modelling techniques in R. We will show how cost-effectiveness analyses can be used in decisions to cover the intervention in a health care system and how uncertainty must be considered in such decisions. The course will put a strong focus on model-based cost-effectiveness analysis. The theoretical concepts will be applied in practical tutorials in R.

Participants do not need prior experience in economic evaluation or clinical research, but a solid understanding of basic statistical concepts and general methods for the clinical evaluation of health care interventions is expected. The practical sessions require previous experience with R.

Contact:
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Course objectives	By the end of our course, participants will: • Understand the basic principles of cost-effectiveness analysis and resource allocation decision making under uncertainty. • Understand the evidence requirements for informing resource allocation decisions in health care. • Be able to implement simple cost-effectiveness analyses in R.
Course audience	Researchers in health sciences, as well as decision-makers from public, commercial, and academic organizations, who need to conduct cost-effectiveness analyses in healthcare or want to gain a deeper understanding of the challenges health economists encounter in these analyses.
Course outline	The course runs over three days and consists of lectures, group work, and computer practical sessions. We start early in the morning by reviewing the previous day. During extended afternoon breaks, participants review course materials, catch up on email, or ski. We reconvene at 4:30 pm for practical sessions. ***Monday, 19 January 8:15 am – 12:15 pm | 4:30 pm – 6:30 pm*** ***Tuesday, 20 January 8:15 am – 12:15 pm | 4:30 pm – 6:30 pm*** ***Wednesday, 21 January 8:15 am – 12:15 pm | 1:15 pm – 3:15 pm***
Credits	1.0 ECTS
Course materials	Bring a portable computer with the latest versions of MS Excel, R and Rstudio installed. *We strongly recommend only bringing computers you have administration rights for to the course.* Onsite University of Bern IT staff provides support upon e-mail (it@ispm.unibe.ch) request.
Course book	We recommend the following book for further reading. *Edlin, R., McCabe, C., Hulme, C., Hall, P., & Wright, J. (2015). Cost effectiveness modelling for health technology assessment: a practical course (No. 12404). Cham: Springer International Publishing.*
Course fee	PhD Bern Students: CHF 600 PhD Students: CHF 800 Academic: CHF 1'000 Industry: CHF 2'000
Registration	Register on the Winter School website. Pre-registration will open on 11 August 2025 at 12:00 (CET) and close on 17 August 2025 at 23:59 (CET).
Accommodation	Book your accommodation separately. Please see recommendations for special prices on our website.

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