

Life Course Epidemiology and Public Health

Facilitators

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Description

Population health is shaped by a complex set of determinants occurring throughout the life course. Life Course Epidemiology (LCE) aims to causally link exposures across the life course to long-term health outcomes via longitudinal studies. LCE investigates the dynamic of exposures at different periods of life (from conception to old ages), at various levels (social, environmental, behavioural, and biological) and historical periods (birth cohorts), and how these exposures influence population health.

For this course, we focus on LCE in public health whereby unravelling the complex origins of disease and health aims at informing preventive strategies. Life course epidemiology informs public health interventions via i) identification of windows of opportunity (life periods), ii) identification of target exposures and iii) assessment of potential intervention strategies.

Stemming from the same framework, we introduce life course theories and contemporary methods of causal inference from observational data, allowing to explicit confounding assumptions underlying LCE research questions and to evaluate potential public health interventions. More specifically, we will address the following topics:

- 1) Why life course studies are essential in Public Health, with an emphasis on early life determinants and primordial intervention of chronic diseases.
- 2) Core epidemiologic study designs of life course studies (birth and prospective cohort studies).
- 3) Main life course models (critical/sensitive period and accumulation) through which exposures may affect later health outcomes.
- 4) Causal thinking and statistical methods to assess LCE models from observational data.

Objectives

After the course, participants should be able to:

- understand the life course approach in health
- critically appraise the life course models
- critically appraise longitudinal epidemiological studies on the relationship between health changes and various exposures at different life periods
- find suitable longitudinal data to answer their life course research question
- choose the most suitable statistical model to answer their life course research question.

Dates

23 – 25 June 2025

Eligibility

Open to SSPH+ PhD students, and senior researchers in the public health field. Max number of participants: 20

Course Structure

This course includes lectures as well as many practical examples and exercises. The first two days will focus on life course epidemiologic concepts and methods, while the third day will provide two examples of public health topics where a life course approach lead to improved understanding of disease determinants and potential interventions. Each day participants will work in groups and share presentations of their work on the third day.

Assessment

Active participation in the exercises and short presentations.

Credits

1 ECTS

Preparation Work: 10 h, Contact: 18 h

(1 ECTS corresponds to appr. 25-30 hours workload)

Location

University of Fribourg, MED16

Course Fees

	1 ECTS
SSPH+ IGC PhD and MD Students	30 CHF
Postdocs from SSPH+ partner institutes	30 CHF
External PhD students, external MD Students and Swiss Public Health Doctors in training	300 CHF
Others	800 CHF

Registration <https://www.conftool.com/ssph-phd-courses2025/>

Deadline for Registration 23 May 2025