

Monitoring the Causes of Deaths: from Data Collection to Analyses

Facilitator

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Description

Death data are widely used by epidemiologists, demographers, and public health researchers. From these data, cause-specific mortality statistics are derived to inform the burden of disease, allowing for prioritization in health policy and resource allocation.

However, there is usually little training on how these data are produced and conceptualized. While the raw data include several causes of death, the current paradigm for international comparison prioritizes just one of them, the one that initiated the process leading to death.

This course will explain the process of death certification and how causes of death are selected to produce cause specific mortality statistics, illustrated with practical examples. It will then introduce techniques to analyze the data using multiple causes of death (MCOD) to capture the full contribution of diseases and conditions to mortality.

We will discuss the benefits and limitations of this broader approach to using the data in routine health research and, for emergency situations such as the COVID-19 pandemic.

This course connects with *Foundations of Public Health*, which introduces core ideas in public health sciences and surveillance, and with *Visualization and Modeling for Public Health Surveillance*, which covers analytical, and visualization methods used in monitoring population health and interpreting surveillance indicators.

Objectives

At the end of the course, students should be able to:

- Describe the process by which death data used in health research are produced.
- Explain the estimation, benefits and limitations of traditional and MCOD cause-specific mortality metrics (i.e., adjusted rates, excess mortality, etc.).

- Discuss multiple cause of death approaches and how they extend the use of mortality data in health research.

Date	21 October 2027, 14:00-16:00
Level	Basic
Eligibility	The course is open to PhD and MD students of the SSPH+ Inter-university Graduate Campus.
Course Structure	The course will include lectures and group discussions based on real-world scenarios.
Workload	Preliminary Work: 2h; Contact time: 2 h
Credits	(1 ECTS for active participation in 4 short online courses and 1 passed assessment in 1 course)
Assessment	Participants who choose this course for credit will complete a short assignment of data analysis and interpretation, demonstrating their understanding of how death data are produced and used in health research (voluntary).
Location	Online
Course Fees	SSPH+ PhD and MD Students: o.- CHF
Registration	http://www.conftool.com/ssph-phd-courses2027
Deadline for registration	21 September 2027

This course is an SSPH+ IGC initiative to provide post-doctoral scientists at SSPH+ network institutions to teach.