Public health surveillance and population health monitoring

Facilitators

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Description

Public health surveillance is the ongoing and systematic collection, analysis, and interpretation of health-related data, closely integrated with their timely dissemination and communication to those responsible for public health strategies and action on disease prevention and control. Methods and tools for surveillance and population health monitoring, initially developed for infectious diseases and outbreak control, are now applied to other health conditions like chronic diseases, mental health or occupational and environmental health.

With the advances in the field of data science and the growing access to multiple types and increasing volumes of data, the field of surveillance and health monitoring is going to adapt and evolve rapidly. This includes moving to a wider scope of applications, for example, surveillance may also include monitoring of risk factors associated with adverse health events or monitoring of health care services. This also implies using new methods for analyzing data, as well as tools for visualizing and communicating data, depending on target publics.

Objectives

Our aim is to work with participants on concrete examples of public health surveillance and monitoring programs, with the target to help them understand some of main challenges associated with their implementation and future perspectives.

By the end of the course, the participants should be familiar with the principles and methods of public health surveillance. In particular, they should:

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- Understand the challenges of surveillance and how they relate to policy making, epidemiology, and health data science

- Know and handle the development of surveillance indicators depending on data available (census and vital statistics, national health surveys, registries, but also medico-administrative data, data from social media or google)

- Know the utility, validity and limitations of health indicators

- Correctly interpret commonly used surveillance indicators

- Understand the basics of syndromic surveillance, aberration detection and epidemic forecasting

- Understand the basics of data visualization tools for communication purposes

Dates	**6 - 9 December 2022**
Eligibility	SSPH+ PhD students. External participants with basic training in public health surveillance or population health monitoring are welcome to apply. Please note this is an advanced course. Basic principles of public health surveillance are addressed in the course "Foundations of Public Health Science" and students are invited to take this course before, if possible.
Course Structure	Lectures, individual exercises and group work
Assessment	In-class assignments and personal work
Credits	**2 ECTS** Preliminary Work: 8 h; Contact time: 24 h; In-course work: 8 h; Wrap-Up Work: 24 h (1 ECTS corresponds to appr. 25-30 hours workload)
Location	Center for primary medicine and public health (Unisanté) – University of Lausanne

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Course Fees	SSPH+ PhD Students	30.- CHF (processing fee)
	External MD/PhD Students	600.- CHF
	External Academics	1700.- CHF
	Other Participants	2500.- CHF

Registration | [Please register online on our website](#)

Deadline for registration | 6 November 2022

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