UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Public Health

2122-4-H4102D030-H4102D115M

Aims

The aim of the course is to provide students with principles, concepts and methods of public health. In detail:

- to describe the fundamentals of public health.
- to describe the analytical method used in public health, that is epidemiology, and how its results are implemented in health promotion, protection and prevention strategies.
- to provide the tools to compute the main frequency measures that describe the health of a population, and to comment on them critically.
- to provide the tools to compute the main measures of association that describe the interplay between health and its determinants, and to comment on such measures critically.

Contents

After an introduction to fundamental concepts of public health, the course will focus on the use of epidemiology as an analytical method to describe the health of a population and its drivers.

Both descriptive and analytical epidemiology will be reviewed, describing the main measures of frequency and association, and their application in real life.

Detailed program

Introduction

- Basic concepts of public health, with the comparison of medicine and public health perspective.
- Definition of epidemiology.
- Focus on frameworks to describe determinants of health.
- Identification of key concepts of a study.

Descriptive epidemiology

- Definition and aims.
- Definition and computation of prevalence (point and period).
- Definition and computation of incidence (risk and rate).
- Rate standardization and its use to compare different settings.
- The epidemiologic transition.

Analytical epidemiology

- Definition and aims.
- Review of the most common study designs.
- Focus on cohort studies, with definition and computation of relative risk and incidence rate ratio.
- Focus on case-control studies, with definition and computation of the odds ratio.

Easy practical exercises will be included in the lessons, with the aim of solidifying the concepts.

The discussion of a final group assignment, focused on a current public health issue, will conclude the course.

Prerequisites

Teaching form

Lectures in presence or via distance learning. The course will be held in English.

Textbook and teaching resource

- Slides
- Textbook. Introduction to Epidemiology, Ilona Carneiro, Natasha Howard. McGraw-Hill Education, 2011. Available as an e-book in the UNIMIB online library.
- Other teaching resources that will be made available on the e-learning platform.

Semester

Second semester.

Assessment method

Written exam, including:

- Multiple choice questions, with the aim of testing the overall competence acquired on the program.
- Open questions to test the skills of critical appraisals regarding the key concepts of the program.
- Exercises to evaluate the acquisition of the basic mathematical concepts of the course.

Optional oral exam, with the discussion of the written exam.

Office hours

By appointment required by e-mail.