Advanced Epidemiological Statistics & Data Analysis

Duration: 5 Days

Language: en

Course Code: IND5 - 153

Objective

Upon completion of this course, participants will be able to:

- Understand key statistical concepts and methods used in epidemiology.
- Develop advanced skills in data management and statistical analysis.
- Learn to apply statistical software tools for epidemiological research.
- Interpret and communicate statistical findings effectively.
- Enhance their ability to design and analyse epidemiological studies.

Audience

This course is intended for:

- Epidemiologists
- Public health professionals
- Medical researchers
- Data analysts in health sciences
- Graduate students in public health and epidemiology

Training Methodology

The course employs a blend of instructional methods, including:

- Interactive lectures
- Hands-on data management and analysis sessions
- Group discussions and case studies
- Expert-led Q&A sessions
- Comprehensive course materials and resources

Summary

This advanced course delves into applying statistical methods in epidemiology, providing participants with the skills necessary to analyse and interpret epidemiological data effectively. Combining theoretical knowledge with practical training, the course covers advanced statistical techniques, data management strategies, and the interpretation of complex datasets, preparing participants to enhance their research and public health initiatives.

Course Content & Outline

Section 1: Foundations of Epidemiological Statistics

- Overview of key statistical concepts in epidemiology
- Types of epidemiological studies and data
- Introduction to statistical software for epidemiological analysis

Section 2: Data Management and Preparation

- Data collection methods and data quality
- Cleaning and preparing epidemiological data
- Handling missing data and data transformation techniques

Section 3: Advanced Statistical Methods

- Descriptive statistics and measures of association
- Regression analysis: linear, logistic, and Cox proportional hazards models
- Advanced techniques: multilevel modelling and time-series analysis

Section 4: Interpretation and Communication of Results

- Interpreting statistical outputs and results
- Data visualisation techniques for epidemiological data
- Communicating findings to different audiences

Section 5: Practical Applications and Case Studies

- Hands-on data analysis with real-world epidemiological datasets
- Developing research questions and analysis plans
- Case studies and collaborative problem-solving
- Course review and expert Q&A

Certificate Description

Upon successful completion of this training course, delegates will be awarded a Holistique Training Certificate of Completion. For those who attend and complete the online training course, a Holistique Training e-Certificate will be provided.

Holistique Training Certificates are accredited by the British Assessment Council (BAC) and The CPD Certification Service (CPD), and are certified under ISO 9001, ISO 21001, and ISO 29993 standards.

CPD credits for this course are granted by our Certificates and will be reflected on the Holistique Training Certificate of Completion. In accordance with the standards of The CPD Certification Service, one CPD credit is awarded per hour of course attendance. A maximum

of 50 CPD credits can be claimed for any single course we currently offer.

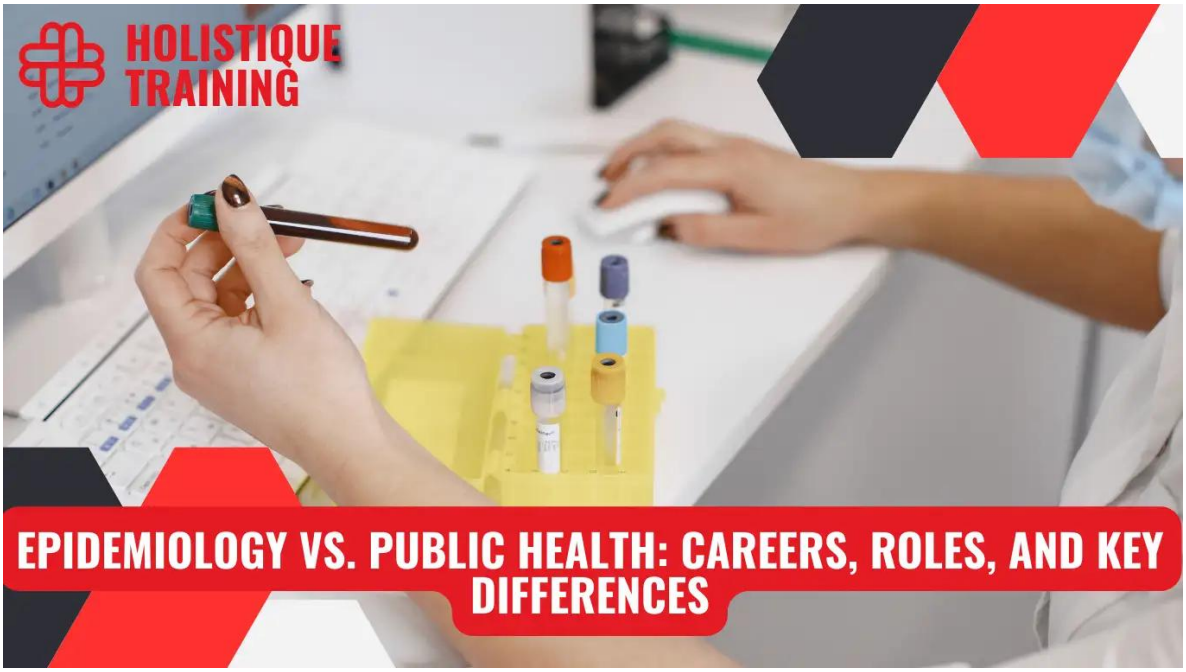
Categories

Consultation & Services, Health, Safety & Environment HSE, Healthcare & Pharmaceutical

Tags

Statistics, Epidemiology, Epidemiological Statistics

Related Articles



Epidemiology vs. Public Health: Careers, Roles, and Key Differences

Epidemiology and public health are interconnected fields that work toward improving community well-being. While epidemiology focuses on studying disease patterns and causes, public health implements preventive measures and health policies. This article examines their differences, career paths, and how they collaborate to protect populations from health threats.