



# The National Institute of Health and Family Welfare

## INTRODUCTION

To have a better health care delivery system and health management, the programme managers and academia require evidence which usually comes from research. Research in public health requires an adequate information which comes from quality data and its scientific analysis. Biostatistics is an interdisciplinary scientific field and Biostatisticians develop and apply statistical methods to scientific research in health-related fields, including medicine, epidemiology, and public health etc. The role of the biostatistician is an important one, especially when it comes to designing studies and analyzing data from research problems. Whereas Epidemiologists study the distribution and determinants of health and disease in populations.

Epidemiology and biostatistics both are the cornerstone of public health research and practice. It is very important for program officers, academicians, public health researchers to have basic knowledge and skills of epidemiology and biostatistics and its application.

This training course introduces the health researchers to the quantitative methods that are helpful in public health research and evidence-based public health policy and practice. Statistical and epidemiological concepts will be taught in parallel to promote integration of knowledge across both disciplines.



## Online Training Course on Application of Biostatistics in Epidemiology and Public Health 20<sup>th</sup> to 22<sup>nd</sup> December, 2021

### COURSE TEAM

**Course Coordinators** : Prof. Pushpanjali Swain  
Prof. Sanjay Gupta

**Course Co-coordinator** : Dr. J. P. Shivdasani

**Course Associates** : Mrs. Vaishali Jaiswal  
Mrs. Bhawna Kathuria

### COURSE DETAIL

- ❖ **Participants** : Health professionals working in Medical and Nursing Colleges, SIHFW, Demographers, Epidemiologists, Statisticians and Biostatisticians
- ❖ **Schedule** : Four sessions will be conducted daily (10 AM to 05:00 PM)
- ❖ **Last Date** : Nomination will be accepted till 10<sup>th</sup> December, 2021
- ❖ **Course Fee** : □ 1000/ per participant
- ❖ **Fee Deposit Detail** : Account Name: Director, NIHFW  
Branch Name: SBI, NIHFW  
A/C No.: 10932790787  
IFSC Code: SBIN0010439
- ❖ **Registration** : [Click here for Registration](#)

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## OBJECTIVES

- ❖ To reinforce the basic knowledge of epidemiological methods and its practical applications in public health settings.
- ❖ To describe the biostatistical skills involved in the analysis of health statistics.
- ❖ To describe the applications of statistical software in data analysis.

## CONTENTS TO BE COVERED

- ❖ Introduction to Epidemiology
- ❖ Measures of disease occurrence and risk
- ❖ Epidemiological Study design
- ❖ Bias in Epidemiological studies and confounding factors
- ❖ Surveillance and Screening
- ❖ Reliability and validity of screening and diagnostic tests
- ❖ Statistical exercises those are applicable in epidemiological studies
- ❖ Introduction to Biostatistics in Public Health
- ❖ Data Collection- Tools and Techniques
- ❖ Data Presentation techniques
- ❖ Data summarization
- ❖ Sampling technique and sample size estimation
- ❖ Tests of significance
- ❖ Correlation and Regression Analysis
- ❖ Basics of Epi Info