

Biostatistics Services Section Home

History

The origins of biostatistics can be traced back to the early 19th century when the British physician John Snow utilized statistical methods to investigate the 1854 cholera outbreak in London. However, the formal recognition of biostatistics as a discipline gained momentum in the 20th century with advancements in probability theory, mathematical statistics, and computing technology.

Ronald A. Fisher

Known as the father of modern statistics, Fisher's work laid the foundation for statistical hypothesis testing and experimental design.

2.

Bradley Efron

Efron's work on bootstrap resampling revolutionized statistical inference, enabling robust analyses in small-sample settings.

Industrial Applications

1.

Epidemiology

It aids in studying disease patterns, risk factors, and health outcomes in populations.

3.

Pharmacokinetics

Biostatistics is employed in determining drug absorption, distribution, metabolism, and excretion.

5.

Public Health Interventions

Biostatistics supports evaluation of interventions like vaccination programs.

7.

Biomedical Research

Biostatistics ensures rigor in experimental design and data analysis.
9.

Quality Control

Biostatistics contributes to ensuring quality in manufacturing processes.
11.

Cancer Research

Biostatistics assists in understanding cancer epidemiology and treatment outcomes.
13.

Health Economics

Biostatistics informs economic evaluations of healthcare interventions.
15.

Cardiovascular Research

Statistical analyses guide studies on heart disease risk factors.
17.

Longitudinal Studies

It s used to analyze data collected over time to understand health trajectories.
19.

Microbiome Analysis

Statistical methods help analyze microbial communities in health and disease.