

1. Record Nr.	UNINA9910139913703321
Autore	Dunn Olive Jean
Titolo	Basic statistics [[electronic resource] ] : a primer for the biomedical sciences / / Olive Jean Dunn, Virginia A. Clark
Pubbl/distr/stampa	Hoboken, NJ, : John Wiley & Sons, c2009
ISBN	1-282-25942-3 9786612259425 0-470-49686-X 0-470-49685-1
Edizione	[4th ed.]
Descrizione fisica	1 online resource (271 p.)
Altri autori (Persone)	ClarkVirginia <1928->
Disciplina	519.5/02461 519.502461
Soggetti	Medical statistics Biometry Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Basic Statistics; CONTENTS; Preface to the Fourth Edition; 1 Initial Steps; 1.1 Reasons for Studying Biostatistics; 1.2 Initial Steps in Designing a Biomedical Study; 1.2.1 Setting Objectives; 1.2.2 Making a Conceptual Model of the Disease Process; 1.2.3 Estimating the Number of Persons with the Risk Factor or Disease; 1.3 Common Types of Biomedical Studies; 1.3.1 Surveys; 1.3.2 Experiments; 1.3.3 Clinical Trials; 1.3.4 Field Trials; 1.3.5 Prospective Studies; 1.3.6 Case/Control Studies; 1.3.7 Other Types of Studies; 1.3.8 Rating Studies by the Level of Evidence; 1.3.9 CONSORT; Problems References2 Populations and Samples; 2.1 Basic Concepts; 2.2 Definitions of Types of Samples; 2.2.1 Simple Random Samples; 2.2.2 Other Types of Random Samples; 2.2.3 Reasons for Using Simple Random Samples; 2.3 Methods of Selecting Simple Random Samples; 2.3.1 Selection of a Small Simple Random Sample; 2.3.2 Tables of Random Numbers; 2.3.3 Sampling With and Without Replacement; 2.4 Application of Sampling Methods in Biomedical Studies; 2.4.1 Characteristics of a Good Sampling Plan; 2.4.2 Samples for Surveys;

2.4.3 Samples for Experiments; 2.4.4 Samples for Prospective Studies  
 2.4.5 Samples for Case/Control StudiesProblems; References; 3  
 Collecting and Entering Data; 3.1 Initial Steps; 3.1.1 Decide What Data  
 You Need; 3.1.2 Deciding How to Collect the Data; 3.1.3 Testing the  
 Collection Process; 3.2 Data Entry; 3.3 Screening the Data; 3.4 Code  
 Book; Problems; References; 4 Frequency Tables and Their Graphs; 4.1  
 Numerical Methods of Organizing Data; 4.1.1 An Ordered Array; 4.1.2  
 Stem and Leaf Tables; 4.1.3 The Frequency Table; 4.1.4 Relative  
 Frequency Tables; 4.2 Graphs; 4.2.1 The Histogram: Equal Class  
 Intervals; 4.2.2 The Histogram: Unequal Class Intervals  
 4.2.3 Areas Under the Histogram4.2.4 The Frequency Polygon; 4.2.5  
 Histograms with Small Class Intervals; 4.2.6 Distribution Curves;  
 Problems; References; 5 Measures of Location and Variability; 5.1  
 Measures of Location; 5.1.1 The Arithmetic Mean; 5.1.2 The Median;  
 5.1.3 Other Measures of Location; 5.2 Measures of Variability; 5.2.1  
 The Variance and the Standard Deviation; 5.2.2 Other Measures of  
 Variability; 5.3 Sampling Properties of the Mean and Variance; 5.4  
 Considerations in Selecting Appropriate Statistics; 5.4.1 Relating  
 Statistics and Study Objectives  
 5.4.2 Relating Statistics and Data Quality5.4.3 Relating Statistics to the  
 Type of Data; 5.5 A Common Graphical Method for Displaying  
 Statistics; Problems; References; 6 The Normal Distribution; 6.1  
 Properties of the Normal Distribution; 6.2 Areas Under the Normal  
 Curve; 6.2.1 Computing the Area Under a Normal Curve; 6.2.2 Linear  
 Interpolation; 6.2.3 Interpreting Areas as Probabilities; 6.3 Importance  
 of the Normal Distribution; 6.4 Examining Data for Normality; 6.4.1  
 Using Histograms and Box Plots; 6.4.2 Using Normal Probability Plots  
 or Quantile-Quantile Plots; 6.5 Transformations  
 6.5.1 Finding a Suitable Transformation

## Sommario/riassunto

New Edition of a Classic Guide to Statistical Applications in the  
 Biomedical Sciences In the last decade, there have been significant  
 changes in the way statistics is incorporated into biostatistical, medical,  
 and public health research. Addressing the need for a modernized  
 treatment of these statistical applications, Basic Statistics, Fourth  
 Edition presents relevant, up-to-date coverage of research  
 methodology using careful explanations of basic statistics and how  
 they are used to address practical problems that arise in the medical  
 and public health settings. Through concise and ea