1. Record Nr. UNISA996280524003316

Titolo	Health Informatics : Personal health device communication Part 10472 : Device specialization-Medication monitor / / IEEE
Pubbl/distr/stampa	New York : , : Institute of Electrical and Electronics Engineers, , 2010
ISBN	0-7381-6211-6
Descrizione fisica	1 online resource (x, 63 pages) : illustrations
Disciplina	610.696
Soggetti	Communication in medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of communication between personal telehealth medication monitor devices and compute engines (e.g., cell phones, personal computers, personal health appliances, set top boxes) in a manner that enables plug-and-play interoperability. It leverages appropriate portions of existing standards including ISO/IEEE 11073 terminology, information models, application profile standards, and transport standards. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability. This standard defines a common core of communication functionality for personal telehealth medication monitor devices. Keywords: device communication, medication monitor, personal health devices.

2. Record Nr. UNINA9910484142103321

Autore	MacFarland Thomas W.
Titolo	Using R for Biostatistics / / by Thomas W. MacFarland, Jan M. Yates
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-62404-8
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XXXV, 902 p. 300 illus., 265 illus. in color.)
Disciplina	570.15195
Soggetti	Biometry Statistics Public health Agriculture Biostatistics Statistical Theory and Methods Public Health
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Functions -- 2.10 Addendum2: Parametric v Nonparametric -- 2.11 Addendum3: Additional Practice Datasets for Data with Normal Distribution Patterns and Data That Do Not Exhibit Normal Distribution Patterns -- 2.12 Prepare to Exit, Save, and Later Retrieve this R Session -- 2.13 External Data and/or Data Resources Used in this Lesson -- 3 Student's t-Test for Independent Samples -- 3.1 Background -- 3.2 Import Data in Comma-Separated Values (.csv) File Format and/or Self Generate the Data Using R-Based Functions -- 3.3 Organize the Data and Display the Code Book -- 3.4 Conduct a Visual Data Check Using Graphics (e.g., Figures) -- 3.5 Descriptive Statistics for Initial Analysis of the Data -- 3.6 Quality Assurance, Data Distribution, and Tests for Normality -- 3.7 Statistical Test(s) -- 3.8 Summary of Outcomes -- 3.9 Addendum1: t-Statistic v z-Statistic -- 3.10 Addendum2: Parametric v Nonparametric -- 3.11 Addendum3: Additional Practice Datasets for Data with Normal Distribution Patterns and Data That Do Not Exhibit Normal Distribution Patterns -- 3.12 Prepare to Exit, Save, and Later Retrieve This R Session -- 3.13 External Data and/or Data Resources Used in this Lesson -- 4 Student's t-Test for Matched Pairs -- 4.1 Background -- 4.2 Import Data in Comma-Separated Values (.csv) File Format and/or Self Generate the Data Using R-Based Functions -- 4.3 Organize the Data and Display the Code Book -- 4.4 Conduct a Visual Data Check Using Graphics(e.g., Figures) -- 4.5 Descriptive Statistics for Initial Analysis of the Data -- 4.6 Quality Assurance, Data Distribution, and Tests for Normality -- 4.7 Statistical Test(s) -- 4.8 Summary of Outcomes -- 4.9 Addendum1: R-Based Tools for Unstacked (e.g. Wide) Data -- 4.10 Addendum2: Stacked Data and Student's t-Test for Matched Pairs -- 4.11 Addendum 3: The Impact of N on Student's t-Test -- 4.12 Addendum 4: Parametric v Nonparametric -- 4.13 Addendum5: Additional Practice Datasets for Data with Normal Distribution Patterns and Data That Do Not Exhibit Normal Distribution Patterns -- 4.14 Prepare to Exit, Save, and Later Retrieve This R Session -- 4.15 External Data and/or Data Resources Used in this Lesson -- 5 Oneway Analysis of Variance (ANOVA) -- 5.1 Background -- 5.2 Import Data in Comma-Separated Values (.csv) File Format and/or Self Generate the Data Using R-Based Functions -- 5.3 Organize the Data and Display the Code Book -- 5.4 Conduct a Visual Data Check Using Graphics(e.g., Figures) -- 5.5 Descriptive Statistics for Initial Analysis of the Data -- 5.6 Quality Assurance, Data Distribution, and Tests for Normality -- 5.7 Statistical Test(s) -- 5.8 Summary of Outcomes -- 5.9 Addendum1: Other Packages for Display of Oneway ANOVA -- 5.10 Addendum2: Parametric v Nonparametric -- 5.11 Addendum3: Additional Practice Data Sets -- 5.12 Prepare to Exit, Save, and Later Retrieve This R Session -- 5.13 External Data and/or DataResources Used in this Lesson -- 6 Twoway Analysis of Variance (ANOVA) -- 6.1 Background -- 6.2 Import Data in Comma-Separated Values (.csv) File Format and/or Self Generate the Data Using R-Based Functions -- 6.3 Organize the Data and Display the Code Book -- 6.4 Conduct a Visual Data Check Using Graphics (e.g., Figures) -- 6.5 Descriptive Statistics for Initial Analysis of the Data -- 6.6 Quality Assurance, Data Distribution, and Tests for Normality -- 6.7 Statistical Test(s) -- 6.8 Summary of Outcomes -- 6.9 Addendum 1: Other Packages for Display of Twoway ANOVA -- 6.10 Addendum 2: Parametric v Nonparametric -- 6.11 Addendum 3: Additional Practice Data Sets -- 6.12 Prepare to Exit, Save, and Later Retrieve This R Session -- 6.13 External Data and/or Data Resources Used in this Lesson -- 7 Correlation, Association, Regression, Likelihood, and Prediction -- 7.1 Background -- 7.2 Import Data in Comma-Separated Values (.csv) File Format and/or Self Generate the Data Using R-Based

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Sommario/riassunto

This book introduces the open source R software language that can be implemented in biostatistics for data organization, statistical analysis, and graphical presentation. In the years since the authors' 2014 work Introduction to Data Analysis and Graphical Presentation in Biostatistics with R, the R user community has grown exponentially and the R language has increased in maturity and functionality. This updated volume expands upon skill-sets useful for students and practitioners in the biological sciences by describing how to work with data in an efficient manner, how to engage in meaningful statistical analyses from multiple perspectives, and how to generate high-quality graphics for professional publication of their research. A common theme for research in the diverse biological sciences is that decision-making depends on the empirical use of data. Beginning with a focus on data from a parametric perspective, the authors address topics such as Student t-Testsfor independent samples and matched pairs; oneway and twoway analyses of variance; and correlation and linear regression. The authors also demonstrate the importance of a nonparametric perspective for quality assurance through chapters on the Mann-Whitney U Test, Wilcoxon Matched-Pairs Signed-Ranks test, Kruskal-Wallis H-Test for Oneway Analysis of Variance, and the Friedman Twoway Analysis of Variance. To address the element of data presentation, the book also provides an extensive review of the many graphical functions available with R. There are now perhaps more than 15,000 external packages available to the R community. The authors place special emphasis on graphics using the lattice package and the ggplot2 package, as well as less common, but equally useful, figures such as bean plots, strip charts, and violin plots. A robust package of supplementary material, as well as an introduction of the development of both R and the discipline of biostatistics, makes this ideal for novice learners as well as more experienced practitioners.