Southern New Hampshire University

IHP 525 Milestone Four Guidelines and Rubric

Overview: Your task is to help the organization answer their question by critically analyzing the data. You will run statistical tests, interpret the results, and present the results and recommendations to non-technical decision makers in the form of a statistical report. Keep in mind that it is your job to do this from a statistical standpoint. Be sure to justify your conclusions and recommendations with appropriate statistical support.

Prompt: In Milestone Three, you created a table listing the tests you were going to complete to investigate your health question. In Milestone Four, you will actually **complete these calculations**.

Specifically, you must address these critical elements:

A. **Graphs:** In this section, you will use graphical displays to examine the data and formulate an initial hypothesis. In particular, you should:
   1. Create key graphical **displays** that give a sense of potential relationships between variables. Include the graphs and discuss why you selected these graphical displays as opposed to others.
B. Conduct appropriate hypothesis **tests**, simple regressions, and other tests to analyze the data set.
C. Explain why these tests are the **best choice** in this context and how they compare with established best practices.
D. **Analysis** of Biostatistics: Use this section to describe your findings from a statistical standpoint. Be sure to:
   1. Present key **biostatistics** from the graphs, tests, and regressions performed, and explain what they mean. Be sure to include a spreadsheet showing your work as an appendix.
   2. What **statistical inferences** or conclusions can you draw based on the hypothesis tests and simple regression analyses performed? Justify your response.

Rubric

Guidelines for Submission: You will submit screenshots of the graphs, the completed table from Milestone Three, and 2–4 paragraphs explaining and interpreting these items in a single Microsoft Word document with double spacing, 12-point Times New Roman font, one-inch margins, and using APA format for any citations.

Critical Elements	Proficient (100%)	Needs Improvement (70%)	Not Evident (0%)	Value
Data Analysis: Graphs: Displays	Creates key graphical displays that give a sense of potential relationships between variables and discusses why these graphs were selected over others	Creates key graphical displays that give a sense of potential relationships between variables and discusses why these graphs were selected over others, but graphs are inappropriate, reasons are illogical, or response contains inaccuracies	Does not create key graphical displays that give a sense of potential relationships between variables and does not discuss why these graphs were selected over others	20
Data Analysis: Tests	Conducts appropriate hypothesis tests, simple regressions, and other tests to analyze the data set	Conducts hypothesis tests, simple regressions, and other tests to analyze the data set, but response contains inaccuracies or not all tests conducted are appropriate	Does not conduct appropriate hypothesis tests, simple regressions, and other tests to analyze the data set	20
Data Analysis: Best Choice	Explains why tests are appropriate in this context and how they compare with established best practices	Explains why tests are appropriate in this context and how they compare with established best practices, but explanation is cursory or contains inaccuracies	Does not explain why tests are appropriate in this context and how they compare with established best practices	15
Data Analysis: Analysis: Biostatistics	Presents key biostatistics from graphs, tests, and regressions performed, including spreadsheet showing work, and accurately explains what chosen calculations mean	Presents key biostatistics from graphs, tests, and regressions performed, including spreadsheet showing work, and explains what they mean, but response contains inaccuracies or omits key details	Does not present key biostatistics performed, including spreadsheet showing work and does not explain what these calculations mean	20
Data Analysis: Analysis: Statistical Inferences	Draws appropriate statistical inferences based on hypothesis tests and simple regression analyses performed and justifies response	Draws appropriate statistical inferences based on tests and regressions, but does not justify response, justification is illogical, or response contains inaccuracies	Does not draw appropriate statistical inferences or conclusions based on tests and regressions	20
Articulation of Response	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	5
			Total	**100%**