

Name: Esteban Ramirez

Score = 20 /25

Submitted on time? ☒ Y ☐ N

**GENERAL REQUIREMENTS (10 POINTS):**

Element	Points	Score	Feedback
Effective git/GitHub	1	1	
Well-organized	1	1	
Strong commentary outside of code chunks	3	2	Keep working on this
Effective use of comments within code chunks	2	1	I didn't see many at all
Code provides correct values and reduces "human intervention"	2	2	
Link on Canvas	1	1	

**STATISTICAL ANALYSES (15 POINTS):**

☐ Took initiative to learn new methods as appropriate

☒ Generally followed the our workflow:

Plot -> Guess -> Create model -> Check assumptions -> Interpret -> Final plot

**Statistical analysis 1:**

Question: does effect of cardiovascular death rate on covid deaths depend on phase of epidemic? (that's the ANCOVA way to state question)

**Workflow checklist**

☒ 1. Plot data

☒ 2. Guess relationships

☒ 3. Create model: 3 separate regressions - should be ANCOVA

☐ Correct model?

☒ 4. Check model assumptions, if needed

☒ 6. Replot

☒ 5. Interpret model

☒ 7. Clear results statement

☒ Interpretation is correct

☒ In prose

☒ Outside of code chunk

### Statistical analysis 2:

Question: Do countries with higher human development index have lower covid case rates?

Workflow checklist

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> 1. Plot data                              | <input type="checkbox"/> 2. Guess relationships                |
| <input checked="" type="checkbox"/> 3. Create model: <u>linear regression</u> |  |
| <input checked="" type="checkbox"/> Correct model?                            |  |
| <input checked="" type="checkbox"/> 4. Check model assumptions, if needed     | <input checked="" type="checkbox"/> 6. Replot                  |
| <input checked="" type="checkbox"/> 5. Interpret model                        | <input checked="" type="checkbox"/> 7. Clear results statement |
| <input checked="" type="checkbox"/> Interpretation is correct                 | <input checked="" type="checkbox"/> In prose                   |
|   | <input checked="" type="checkbox"/> Outside of code chunk      |

### Statistical analysis 3:

Question: Do countries with higher median age (i.e. "older" populations) have higher covid death rates?

Workflow checklist

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> 1. Plot data                              | <input type="checkbox"/> 2. Guess relationships                |
| <input checked="" type="checkbox"/> 3. Create model: <u>linear regression</u> |  |
| <input checked="" type="checkbox"/> Correct model?                            |  |
| <input checked="" type="checkbox"/> 4. Check model assumptions, if needed     | <input checked="" type="checkbox"/> 6. Replot                  |
| <input checked="" type="checkbox"/> 5. Interpret model                        | <input checked="" type="checkbox"/> 7. Clear results statement |
| <input checked="" type="checkbox"/> Interpretation is correct                 | <input checked="" type="checkbox"/> In prose                   |
|   | <input checked="" type="checkbox"/> Outside of code chunk      |

#### Additional feedback

Overall good, but I think you need to consider your data a bit more. It doesn't seem plausible to me that there are actually countries with no covid deaths, so I think you should filter the countries with 0 for your response variable out before running your analysis.

Work to bring in scientific interpretation of your results. Do they make sense biologically?

See `prelim-analysis-feedback.qmd` for more.