
Effect of environmental factors on health

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Abstract

In this project we plan to analyze which diseases and to what degree are more frequent due to polluting factors. We plan to use two datasets, the first one can be generated using the [Global Burden of Disease](#) website and it consists of statistics for a lot of diseases. The other dataset can be generated using [The World Bank](#) website, where we can find a lot of information about pollution. These topics have a top priority in our society today. Pollution is at an all time high, and we find it really important to determine how it influences our everyday health. We are planning to analyze how has the number of cases of certain diseases in countries changed over time, and compare it to change of some polluting factors in those countries. We expect that with higher pollution rates, some respiratory diseases and some types of cancer have become more frequent during recent years. We also hope to find more interesting findings concerning other types of diseases.

1. Introduction

Motivate the problem, situation or topic you decided to work on. Describe why it matters (is it of societal, economic, scientific value?). Outline the rest of the paper (use references, e.g. to Section 2: What kind of data you are working with, how you analyse it, and what kind of conclusion you reached. The point of the introduction is to make the reader want to read the rest of the paper.

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2. Data and Methods

In this section, describe *what you did*. Roughly speaking, explain what data you worked with, how or from where it was collected, its structure and size. Explain your analysis, and any specific choices you made in it. Depending on the nature of your project, you may focus more or less on certain aspects. If you collected data yourself, explain the collection process in detail. If you downloaded data from the net, show an exploratory analysis that builds intuition for the data, and shows that you know the data well. If you are doing a custom analysis, explain how it works and why it is the right choice. If you are using a standard tool, it may still help to briefly outline it. Cite relevant works. You can use the `\citep` and `\citet` commands for this purpose ([MacKay, 2003](#)).

3. Results

In this section outline your results. At this point, you are just stating the outcome of your analysis. You can highlight important aspects (“we observe a significantly higher value of x over y ”), but leave interpretation and opinion to the next section. This section absolutely *has* to include at least two figures.

4. Discussion & Conclusion

Use this section to briefly summarize the entire text. Highlight limitations and problems, but also make clear statements where they are possible and supported by the analysis.

Contribution Statement

Explain here, in one sentence per person, what each group member contributed. For example, you could write: Max Mustermann collected and prepared data. Gabi Musterfrau and John Doe performed the data analysis. Jane Doe produced visualizations. All authors will jointly write the text of the report. Note that you, as a group, are collectively responsible for the report. Your contributions should be roughly equal in amount and difficulty.

Notes

Your entire report has a **hard page limit of 4 pages** excluding references. (I.e. any pages beyond page 4 must only contain references). Appendices are *not* possible. But you can put additional material, like interactive visualizations or videos, on a github repo (use [links](#) in your pdf to refer to them). Each report has to contain **at least three plots or visualizations**, and **cite at least two references**. More details about how to prepare the report, including how to produce plots, cite correctly, and how to ideally structure your github repo, will be discussed in the lecture, where a rubric for the evaluation will also be provided.

References

MacKay, D. J. *Information theory, inference and learning algorithms*. Cambridge university press, 2003.