

Process Book

Health Situations Around The World and in Australia

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Team 6

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# Executive Summary

The requirements, design and validation of a comprehensive data visualisation project for understanding health situations in Australia and around the world with many aspects such as physicians, tobacco use or life expectancy are detailed in this report. The main objective of the project was to create an interactive and user friendly platform enabling a clear interpretation of complex data, fostering informed debate.

The project's salient features comprise of precise data representation, a clear and readable design, and interactive graphics. Dynamic animations, an interactive legend, tooltip boxes with further data, graph surrounding axes, and temporal markers with additional context were among the optional improvements.

The project was organized around health-related topics, including life expectancy, the number of doctors in each Australian state, and tobacco use in both OECD and non-OECD nations. Using early designs and screenshots from already-existing data charts, the first design phase was built upon. A range of visual tools, including heat maps, line charts, and bar charts, were used in the final visualization design in order to present the data in a clear and comprehensive manner.

Reliable sources, precise data processing techniques, and accurate information representation in the visualizations were all guaranteed via data validation. To enhance data exploration and comprehension, interactive features were incorporated while adhering to established design principles and practices.

To sum up, this study has been crucial in helping us comprehend the nuances of migration to Australia and all of its ramifications. This project's interactive tools and visualizations help stakeholders gain useful information by helping them comprehend health problems more clearly. The project emphasizes the value of educated debates and decision-making based on the best available data.

Table of Contents

[Executive Summary 1](#_Toc136440267)

[INTRODUCTION 3](#_Toc136440268)

[1.1 BACKGROUND AND MOTIVATION 3](#_Toc136440269)

[1.2 VISUALISATION PURPOSE 3](#_Toc136440270)

[1.3 PROJECT SCHEDULE 3](#_Toc136440270)

[DATA 5](#_Toc136440272)

[2.1 DATA SOURCE 5](#_Toc136440273)

[2.2 DATA PROCESSING 8](#_Toc136440274)

[REQUIREMENTS 13](#_Toc136440275)

[VISUALISATION DESIGN 14](#_Toc136440276)

[4.1 Initial Visualisation Design 14](#_Toc136440277)

[4.2 Final Visualisation Design 17](#_Toc136440278)

[VALIDATION 22](#_Toc136440279)

[CONCLUSION 23](#_Toc136440280)

[REFERENCES 24](#_Toc136440281)

[APPENDICES 24](#_Toc136440281)

# INTRODUCTION

Countries' economic standing and conditions of living for civilians are reflected in their health and the elements that contribute to it. The ongoing discourse surrounding healthcare policies and their effects on the nation has led to an increasing need for thorough and easily comprehensible migration data visualizations in order to gain a deeper understanding of the patterns and consequences of health in several nations across the globe.

## **1.1** **BACKGROUND AND MOTIVATION**

Health is a multifaceted social phenomena that impacts many aspects of a country. Its effects can be seen in global policy-making processes, economic growth, and demographic makeup. But comprehending these effects necessitates a lot of data, which many individuals may find difficult to understand.

This is the motivation behind the creation of our graphic aid. This report is intended for easy visualization by policymakers, researchers, students, and anyone else with an interest in global healthcare policies.

We prioritize readability and clarity in our visualization. Users may easily obtain insights into alcohol and tobacco consumption, life expectancy, and the number of physicians in Australia thanks to the user-friendly way in which health data is presented.

Our visualization seeks to do more than just provide information; it also hopes to spark thoughtful debates and encourage evidence-based decision-making. By emphasizing the various facets of health, we hope to increase people's comprehension of this intricate matter and promote empathy as well as a more expansive perspective.

## **1.2 VISUALISATION PURPOSE**

Researchers and policymakers will benefit from the following visualizations, which provide insights into health problems that affect global well-being. In order to make the data more realistic, some tools that assist people in interacting with it would also be provided. For example, users can identify tobacco and alcohol intake using displayed charts. People can evaluate demographic characteristics, such age and gender, with the use of line charts. Policymakers and researchers can recognize possibilities and problems associated with integrating health and factors contributing to health crises by having a thorough understanding of these qualities.

Additionally, these visualizations will offer a variety of perspectives on the ways in which healthcare impacts people's quality of life.

The effects on socializing and the economy may be crucial for health. For those in charge of allocating resources, developing infrastructure, and deciding on economic policy issues, it is a crucial tool.

All things considered, a geographic map will be an invaluable tool for everyone trying to comprehend the nuances of global health and how it affects a nation's economy, society, and cultural variety.

## **1.3 PROJECT SCHEDULE**

* Week 6: Get the project underway. Condense the project's goals and establish a GitHub repository.
* Week 7: Put the project to work.
* Get ready for the project process book to come.
* Include some text that emphasizes background information and motivation (introduction).
* Configure the website with a purpose or heading, emphasizing HTML usage.
* Organize the geometric elements that will be used in the project to convey the data.
* Week 8-9: Pay attention to data analysis and study.
* As mentioned in Week 3, conduct research to gather the necessary data.
* Use D3 to process data and turn it into charts for data display.
* Give specifics on the workbook's data collecting and cleaning.
* Week 10: Complete website development.
* Include the appropriate routines to display data correctly.
* To improve the website's appearance, add some CSS effects.
* Incorporate JS to convert data with D3.
* Consult the instructor.
* Week 11: Complete the project process book.
* Finish the material.
* Include citations.
* Correct any errors in grammar and spelling.
* Week 12-13: Complete the project.
* Get input from the instructor to address any problems.
* Send in the completed project.