

Process Book

Health Situations Around The World and in Australia

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Team 6

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# Executive Summary

This report details the requirements, design, and validation of a comprehensive data visualisation project aimed at understanding health situations in Australia and throughout the world with many aspects (physicians, tobacco consumption and life expectancy). The primary focus of the project was to create an interactive and user-friendly platform that allows a clear interpretation of complex data and fosters informed discussions.

Key features of the project include interactive visuals, a clean and easy-to-read design, and accurate data representation. Optional enhancements included dynamic animations, an interactive legend, tooltip boxes for additional data, graph bordering axes, and temporal markers for added context.

The project was structured around healthcare, such as the number of physicians in each state in Australia, life expectancy and tobacco consumption in both OECD and non-OECD countries. The initial design phase utilized screenshots from existing data charts and preliminary sketches as a base. The final visualisation design incorporated a variety of visual tools such as heat maps, line charts, and bar charts, designed to provide a vivid and comprehensive depiction of the data.

Data validation ensured the use of reliable sources, the application of accurate data processing methods, and the correct representation of information in the visualisations. Established design principles and practices were followed, and interactive features were added for improved data exploration and understanding.

In conclusion, this project has been instrumental in understanding the complexities of migration to Australia and its multi-faceted implications. The interactive tools and visualisations designed in this project facilitate a clearer understanding of health situations, providing valuable insights for a variety of stakeholders. The project underlines the importance of informed discussions and evidence-based decision-making.

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# INTRODUCTION

Health and its contributing factors have been an important aspect of the couuntries, and it reflects the countries’ economy status and the living of standard of the civilians. With the continuous discussion over healthcare policies and their impact on the country, there is a rising demand for comprehensive and accessible visualisations of migration data to better comprehend the trends and implications of health aspects in many countries around the world.

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

Health, as a social phenomenon, is multidimensional and affects various facets of a nation. Its impacts are discernible in demographic composition, economic growth, and even policy making processes of the world. However, the process of understanding these impacts requires a large amount of data, which can be hard for many people to understand.

This is the reason why our visualization is made. We designed this report for people to easily visualize, whether you are a policymaker, researcher, or student or even someone that is interested in the healthcare policies around the world.

With a focus on clarity and comprehensibility, our visualisation presents health data in a user-friendly format. It allows users to readily gain insights into the consumption of alcohol and tobacco, life expectancy and the number of physicians in Australia.

Beyond serving as an informative tool, our visualisation aims to stimulate informed discussions and support evidence based decision making. By highlighting the different aspects of health, we aim to help people better understand this complex issue, fostering not just knowledge, but also empathy and a broader viewpoint.

## **1.2 VISUALISATION PURPOSE**

These visualisations below will help researchers, policymakers have various insights into health situations contributed to the well-being of the world. Furthermore, there would be some tools added that help users interact with the data to help it be more realistic. For instance, users can use visualized charts to identify the consumption of alcohol and tobacco. Line charts are useful for people to analyze the demographic characteristics, such as age, and gender. By understand these characteristics, policy makers and researchers are able to identify potential challenges and opportunities related to the integration of health and factors contributing to health situations.

Moreover, these visualisations will also provide various insights into how healthcare affects the living standards of people.

The impact on the economic and socialization could play an important role on health as it is the important key for policy makers that responsible for making decisions about resource allocation, infrastructure planning as well as the aspects of economy policy.

Overall, a geographical map will be a valuable resource for anyone that is interested in understanding the complexities of health of the world and its impact on the country's society, economy, as well as cultural diversity.

## **1.3 PROJECT SCHEDULE**

* Week 6: Start working on the project. Summarize the project objectives and create a GitHub repository.
* Week 7: Work on the project.
  + Prepare the appearance of the project process book.
  + Add some content with a focus on motivation and background (introduction).
  + Set up the website with some function or label, focusing on using HTML.
  + Plan the type of geometric that will be added to the project for data presentation.
* Week 8-9: Focus on data research and analysis.
  + Conduct research for needed data as discussed in Week 3.
  + Process data and convert it to charts using D3 for data presentation.
  + Provide details on data cleaning and acquisition for the workbook.
* Week 10: Finish working on the website.
  + Add suitable functions to present data properly.
  + Add some CSS effects to make the website look better.
  + Add JS for converting data using D3.
  + Check with the tutor.
* Week 11: Finalize the project process book.
  + Complete the content.
  + Add references.
  + Fix any grammar and spelling mistakes.
* Week 12-13: Finalize the project.
  + Receive feedback from the tutor to fix all issues.
  + Submit the final project.