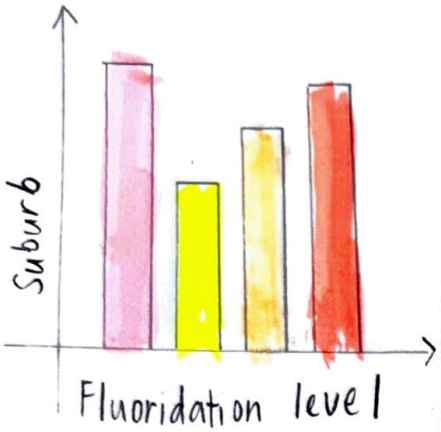
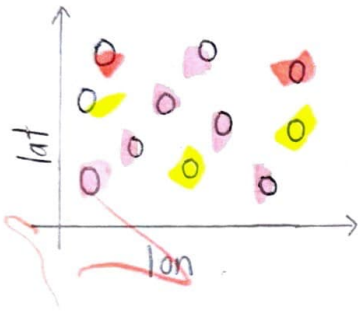
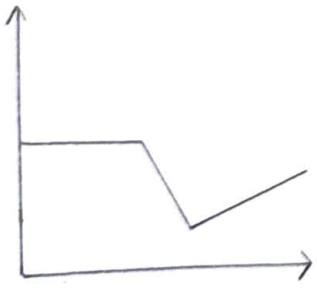
Ideas (1)

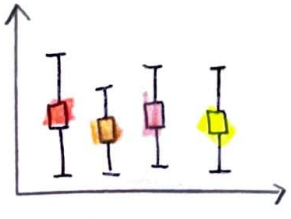




pie chart

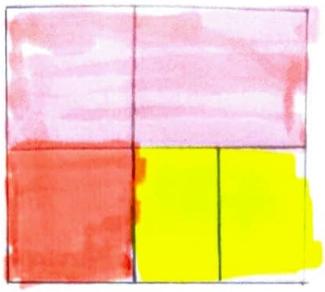


line graph



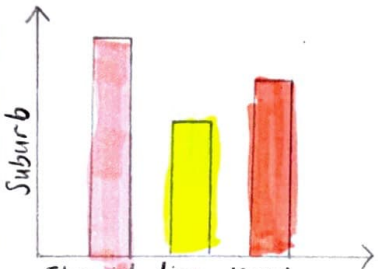
Boxplot

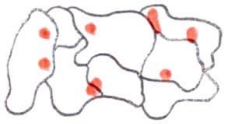
map



Tree map

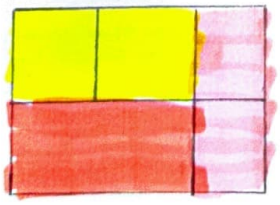
Filter (2)





map

pie chart



Tree map

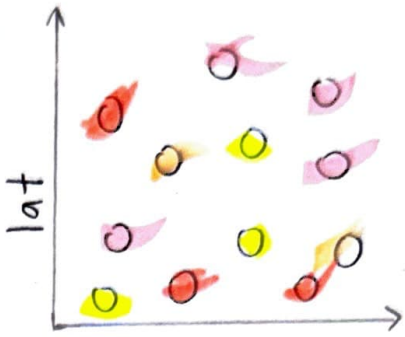
Categorize (3)

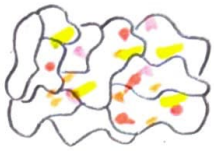
Charts: bar, scatter, pie

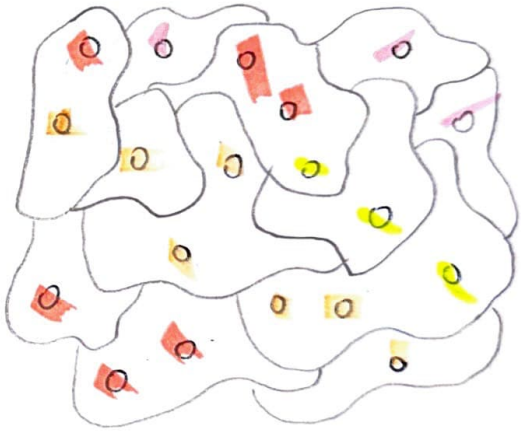
map: point map, interactive map with filters

Tables / Interactivity: Filter options, tables with sorting

Combine (4)





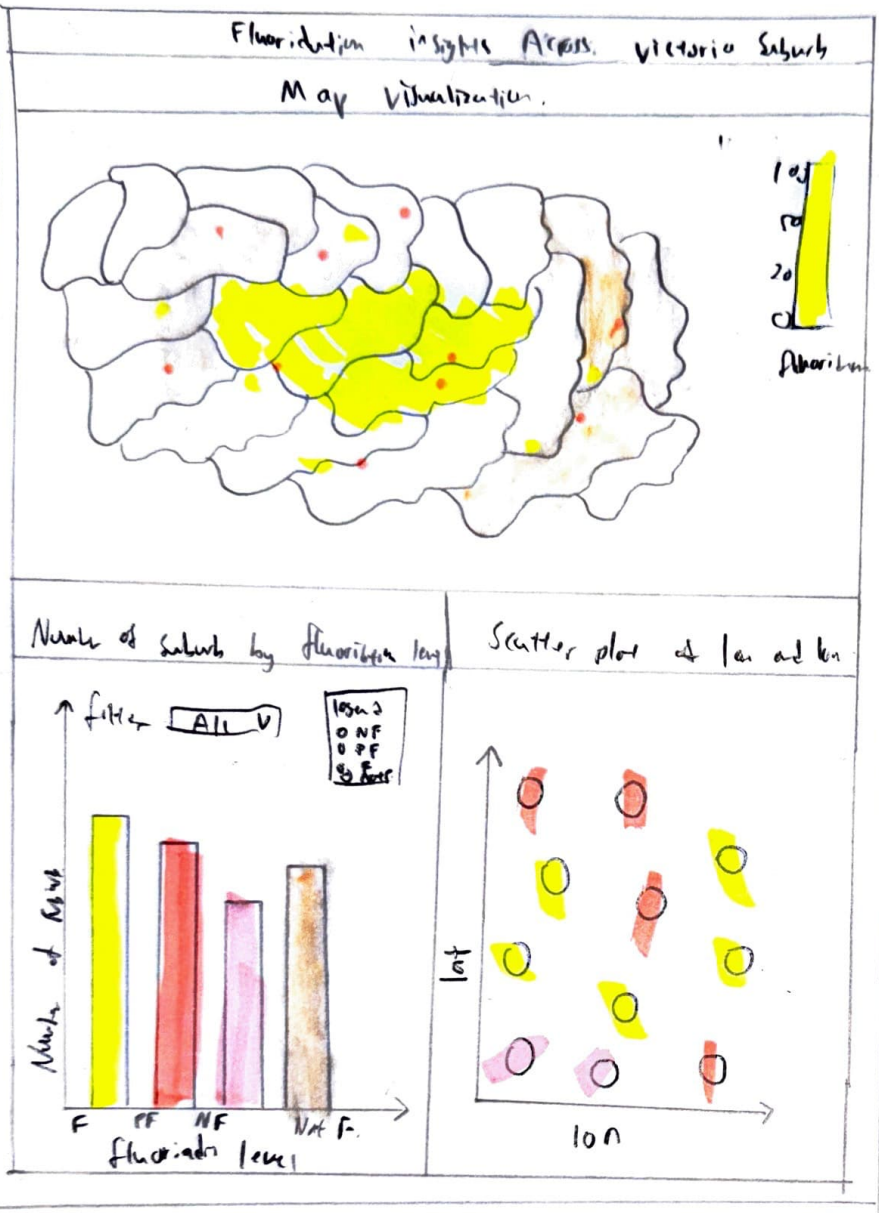


Question (5) ?

Does this visualization answer the primary research question about fluoridation levels across Victoria?

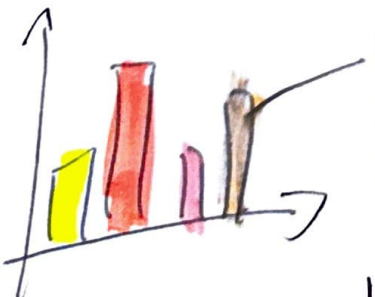
Does it allow easy interaction to explore and filter data?

Layout



Focus

main idea : Exploring fluoridation levels by geographic location and total counts



User hover over to see details.

how much suburb fall into each fluoridation category.

filter. All

drop down menu for filter.

NF
PF
F
Not F

Bar : categorical analysis

Map : geographical content

Summary Information

Title : Fluoridation insights Across Victoria Suburb

Authors. Edden

Date 12/10/2024

Sheet 02

Operation

Component 1 : Bar Chart - Count of Suburbs per fluoridation level.

Operation : Hover over bars for tooltips with suburb counts

Component 2 : point map - Geographic locations by fluoridation level.

Operation : Hover over points for suburb details (latitude, longtitude, fluoridation level)

Component 3 : Filters - Dropdown and Slider filters to refine the data

Operation : Drop down filter to select fluoridation levels, sliders for adjusting the visible range of latitude and longtitude

Pros / Cons

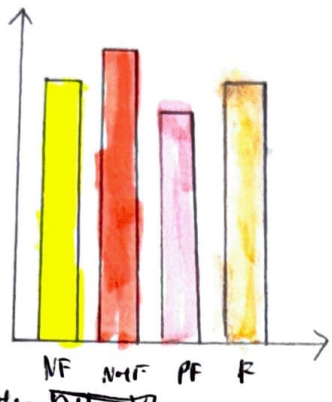
Pros : Interactive and intuitive provides both geographical and categorical insights. Allow filtering and detailed exploration of data

Cons : May require too many filter interactions to view specific results. Could become overwhelming if too many points or filters are applied simultaneously.

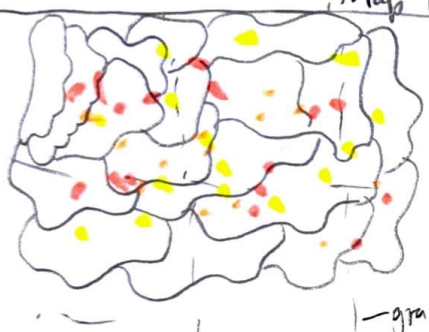
Layout

Fluoridation pattern and geographic clutter

Tree map show number of suburb | Count of suburb by water supply



Maps visualisation

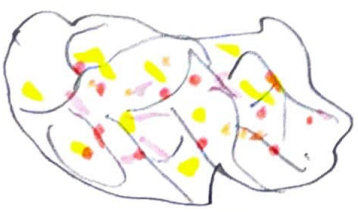


filter = All

zoom : 8

Focus

main Idea: Focus on refining the exploration process by allowing users to click on the map to highlight selected areas.



clearly conveying fluoridation level.

zoom level : 8 → zoom to see detail.

filter : All

filter | All

User can focus on interactive filter to explore details.

Summary Information

Title: Fluoridation pattern and geographic cluster

Authors: Edden

Date: 12/10/2024

Sheet: 03

Operation / Components

Component 1: Map - Suburbs visualized by latitude/longitude, coloured by fluoridation level

Operation: Hover over points for detailed information, click to zoom into suburbs of interest.

Component 2: Bar Chart - Updated based on the clicked region or visible points on the map.

Operation: Hover for tooltips, click to isolated specific categories.

Component 3: Summaries - Boxes providing key insights at the top

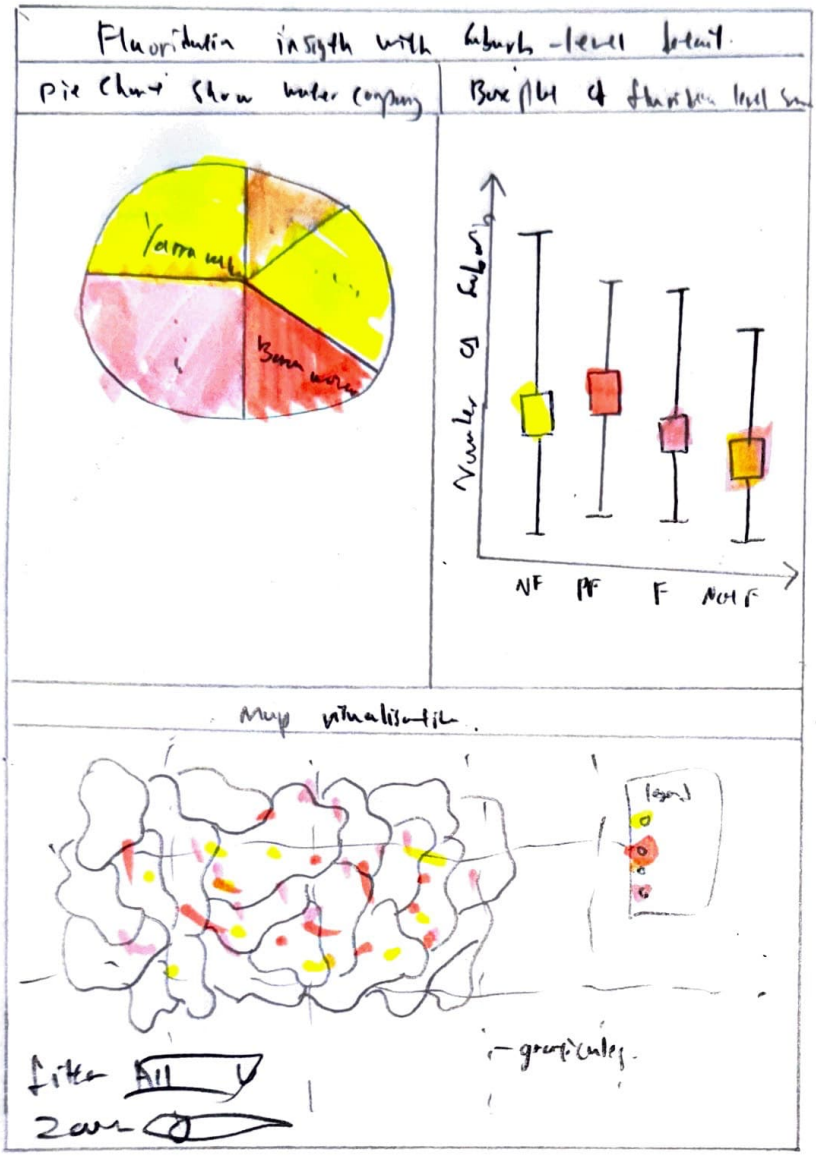
Operation: Auto-updated as the user filters or zooms in/out on the map

Pros / Cons

Pros: More interactive, provides clickable features to zoom in on dense clusters. Additional insight boxes summarize key points, making it easier to interpret.

Cons: Requires the user to interact more with the map, which might not always be intuitive. May need additional fine-tuning to avoid over clutter in denser areas.

Layout



Summary Information

Title: Fluoridation insight with suburb-level Detail

Authors: Edden

Dates: 12/10/2024

sheet: 04

Operation / Components

Component 1: map - Fluoridation levels visualized geographically with the ability to filter via the map

Operation: Hover, click to filter, or drag to zoom into a region.

Component 2. Pie chart - Updated based on user interaction with the map

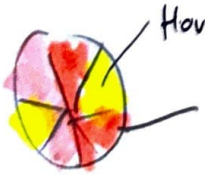
Operation: Sortable columns (fluoridation level, latitude, longitude, suburb.)

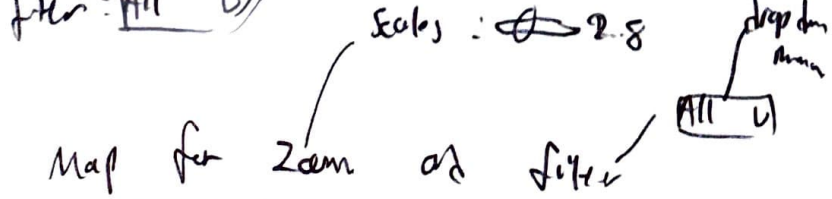
Component 3. Box plots - offers an overview, updating as the users filters by region.

Operation: shows counts of suburbs dynamically, updating with map/table filters

Focus

main Idea: Provide a map first interaction with detailed data shown in table format, facilitating precise exploration



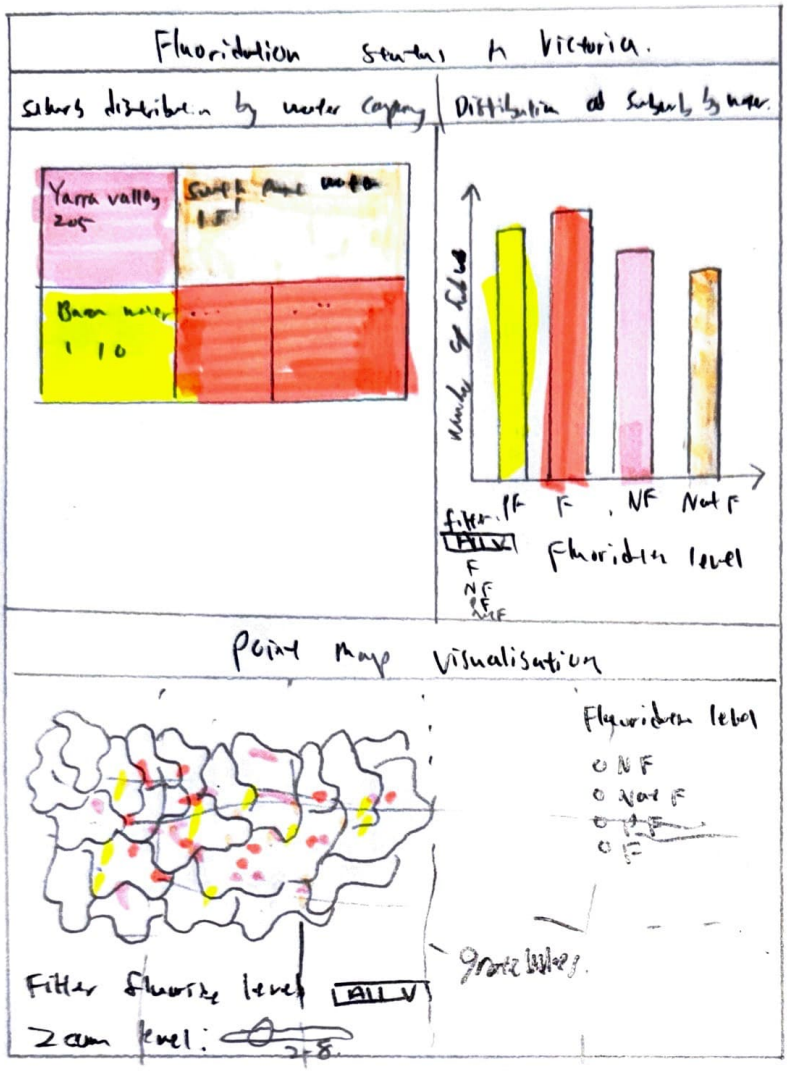


Pros / Cons

Pros: A more data heavy approach offering precise suburb insights. The interactive table makes it easier to find specific suburbs or fluoridation levels

Cons: Users may become too reliant on the table, ignoring the map's spatial context. Requires more interaction, which could be overwhelming for casual users.

Layout



Summary Information

Title: Fluoridation pattern and geographic cluster

Authors: Edden

Date: 12/10/2024

Sheet: 05

Operation:

Bar Chart: Use filter to categorise the fluoridation level

point map: zoom, panel and filter to categorise the fluoridation level

Tree map: Hover over the rectangle and the chart to see the tools tips show details.

Details

Data handling

Data preprocessing: Ensure the data is cleaned and preprocessed to handle missing value, outliers and categorical encoding before visualization

User Experience Considerations:

Responsive: Ensure that the visualization is responsive and adapts different screen sizes and devices.

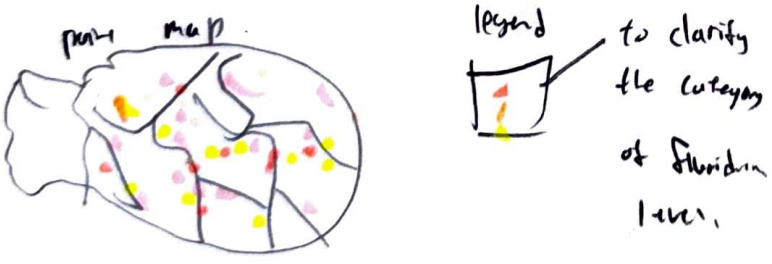
Estimated Time and Resources

Development Time: Approximately 1-2 weeks including testing and refinement.

Interactivity: Focus on making the interactive elements ~~into~~ intuitive and responsive to enhance the user experience.

Focus:

Main Idea: Focus on refining exploration fluoridation levels across suburb



filter All → show all categorical data.

zoom level: → can zoom to see details of high concentration area