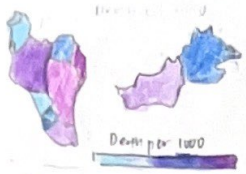
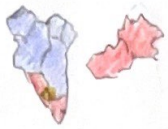
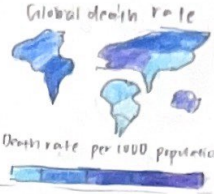
IDEAS

① Death and health-related attribute on map





Top 1 Death cause
- Covid-19
- Heart disease
- Pneumonia



Num of hospitals
- 0 < 50
- 50 % 50 < 100
- > 100

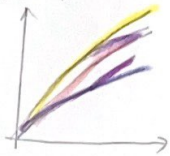
I don't represent 100 death

② Death rate by different Populations

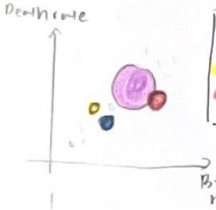
Ethnic
- Malay
- Chinese
- Indian
- Others

or

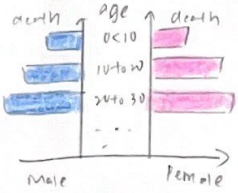
or

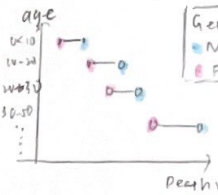


Life stages
- Infant
- Toddler
- Prenatal

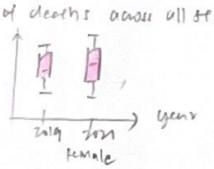


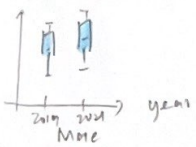
Ethnic
- Malay
- Chinese
- Indian
- Others

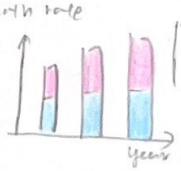




Gender
- Male
- Female

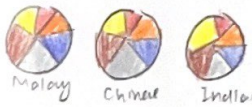




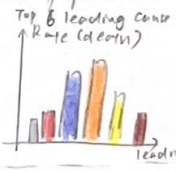


Gender
- Male
- Female

③ Leading cause of death in different populations

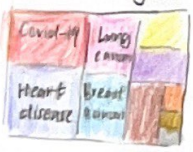


Top 6 leading cause of death
- Heart disease



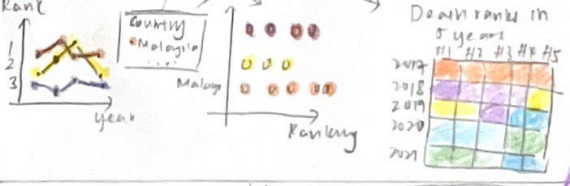
⇒ duplicated for 2021 version

Top 10 leading cause of death

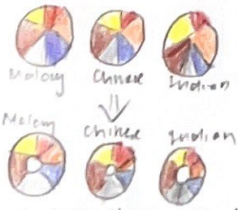


(urban vs rural) death cause

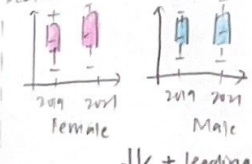
④ Malaysia's Southeast Asia Death Ranking



COMBINE AND REFINE

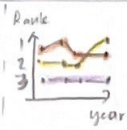


use donut chart instead of pie chart to save space and reduce confusion caused by judging angle at centre

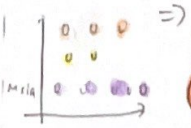


+ leading causes of death

use colored chart to visualise both male and female together



Country
- Malaysia



⇒ replace all the symbols by country flag

This changes it to pictype chart which is more intuitive and eye-catching

FILTER

Ethnic
- Malay
- Chinese
- Indian
- Others

or

Top 6 Leading Cause of death
- Covid
- Heart

Not a good choice as reader may judge the sector angle at origin / misleading and not space efficient

Gender
- Male
- Female

Not a good choice as it is hard to judge and compare the values based on the baseline

CATEGORIES

Death and health-related attribute on Map

⇓

Death rate by different populations
- Ethnic
- Life stages
- Gender

⇓

Leading Causes of death

⇓

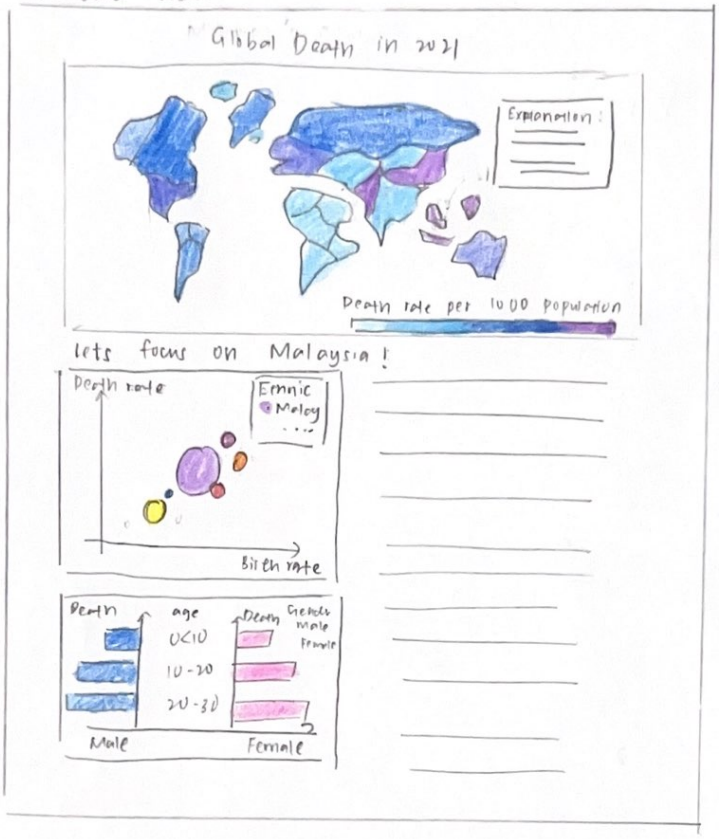
Malaysia's Southeast Asia Death Ranking

QUESTIONS

1. Does the visualisation of death rate and leading cause of death answer the 'WHY'?
2. Is it feasible to implement a huge amount of map returns?
3. Is the dashboard looked visually appealing to the readers?

LAYOUT

Dashboard View



TITLE: Dashboard View

AUTHOR: Chan Kin Mun

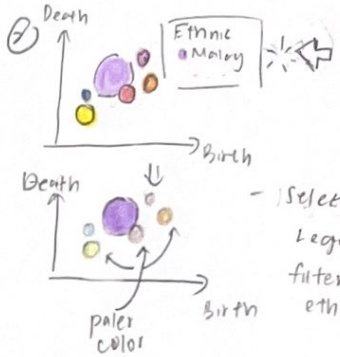
DATE: 14 October 2024

SHEET: 2

TASK: Death rate focusing on population

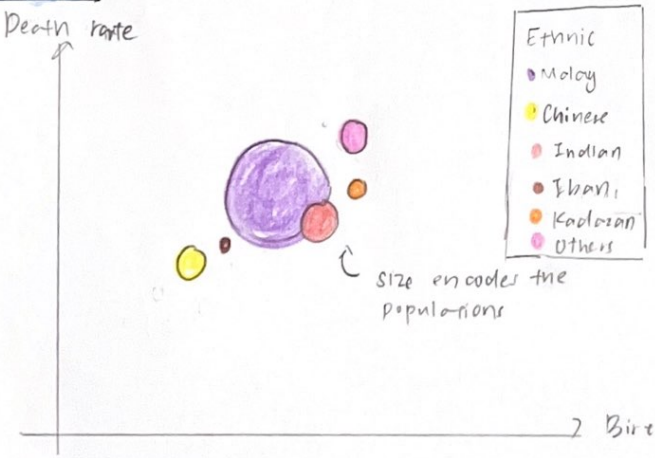
OPERATION

- Clicking on the country shows the description of deaths of that country.



- Selection by Legend to filter the ethnic specified

FOCUS



Bubble Chart

- use color hue to encode different ethnic group
- use size encode the populations of each ethnic group
- This visualisation describes how the death rates vary across different ethnics and birth rate

DISCUSSION

Advantages

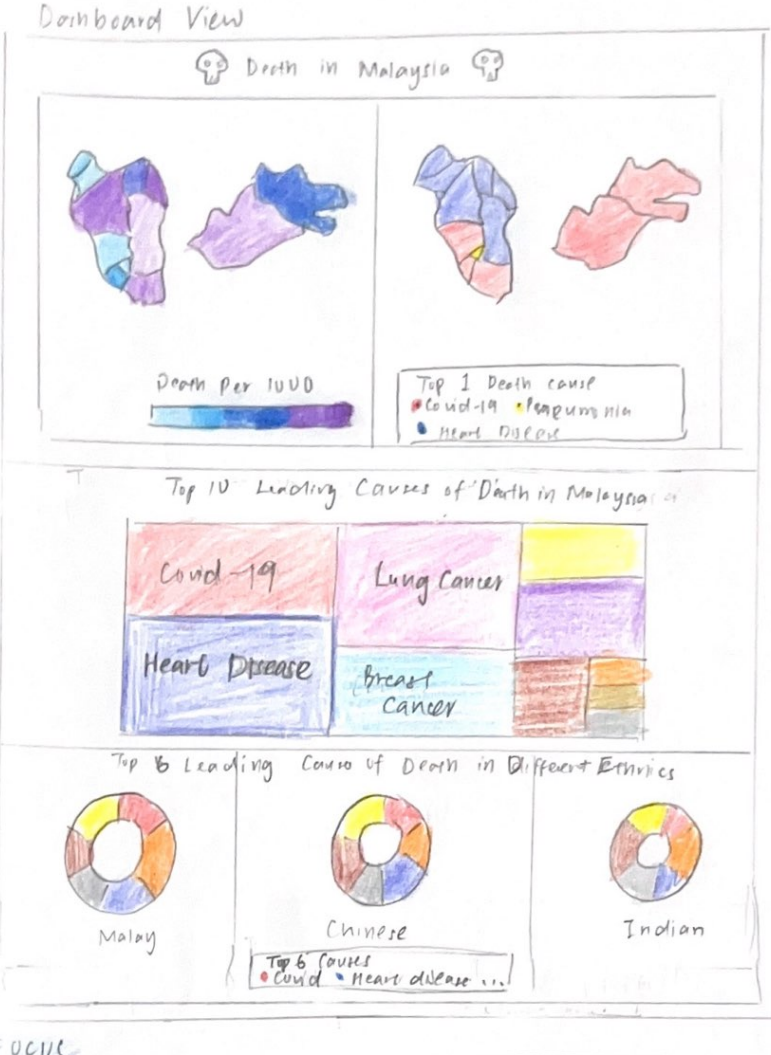
- easy to follow as the entire dashboard only focuses on the population
- Design is neat as all idioms are arranged and structured in rows and columns.

Disadvantages

- layout is somewhat not balanced, with right hand side occupied large amount of texts.
- Too long paragraphs may make the visualisation dashboard looks boring.

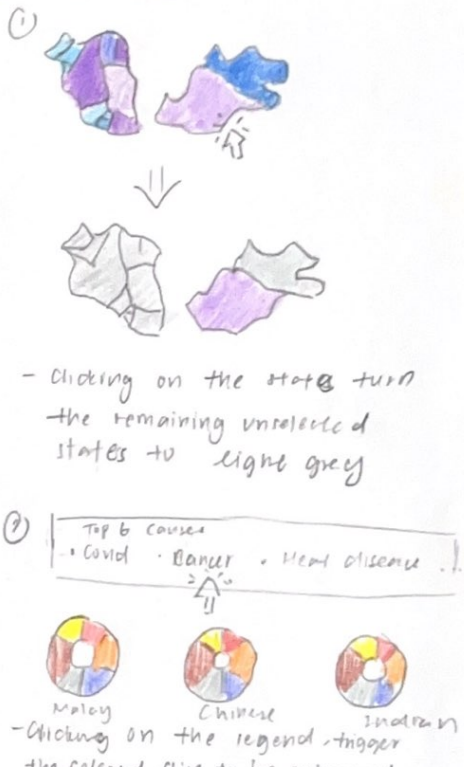
LAYOUT

Dashboard View



TITLE : Dashboard View
AUTHOR : Chan Kin Hou
DATE : 14 October 2024
SHEET : 3
TASK : Death rate in Leading Causes of Death

OPERATION



- Clicking on the states turn the remaining unselected states to light grey
- Clicking on the legend, trigger the selected slice to be coloured

FOCUS

- Chloropleth map which use the color luminance to encode the death per 1000
- This shows the overall death rate across the states
- Placing this map side-by-side with chloropleth map showing the leading causes of death of every states give good insights.

DISCUSSION

Advantages

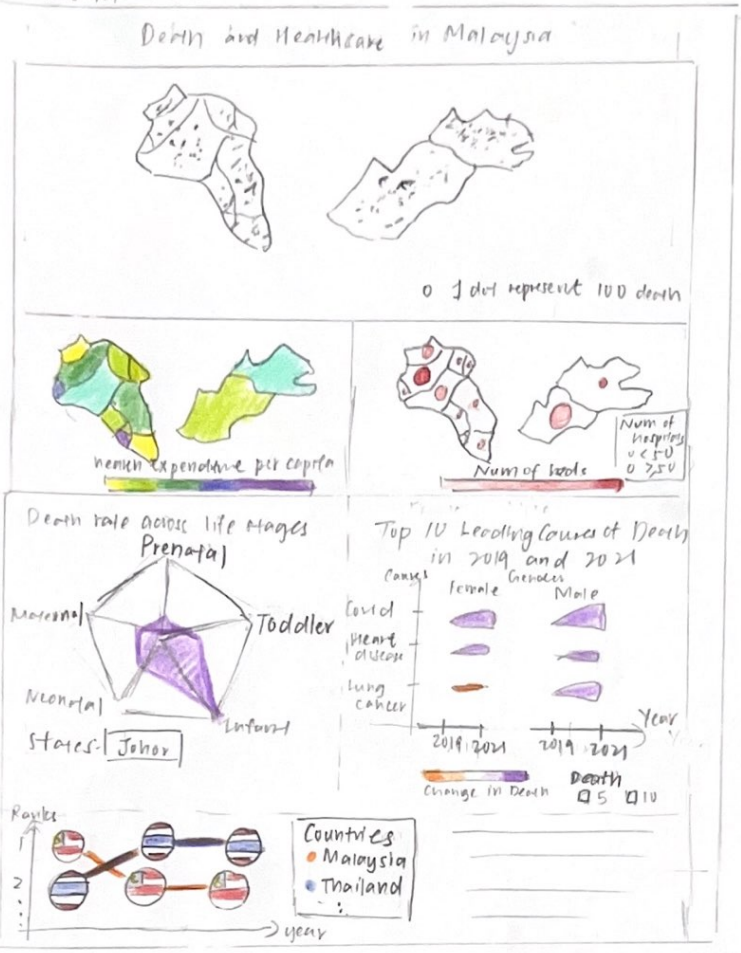
- easy to follow as each section follow a logical flow
- More visualisations than text paragraphs, looks more attractive

Disadvantages

- Limited text paragraphs explaining the charts, readers may have difficulty in understanding the charts
- Vega lite doesn't support tilemap, need to utilise external library to create it

LAYOUT

Dashboard View



TITLE: Dashboard View

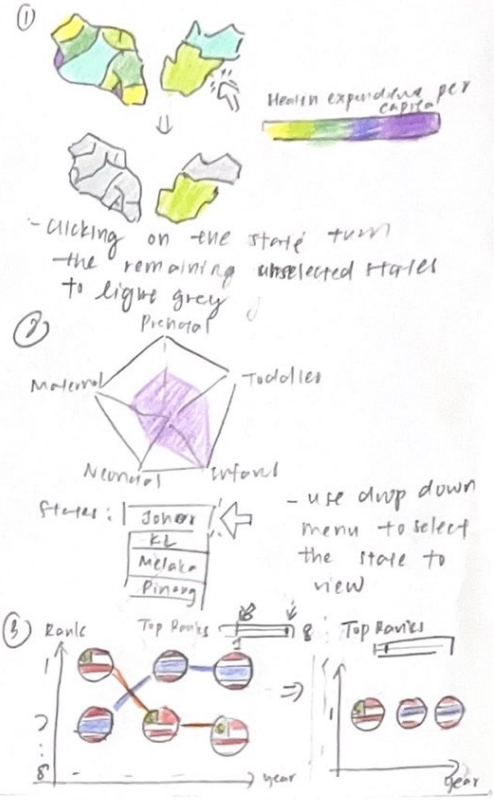
AUTHOR: Chan Kin Hou

DATE: 14 October 2024

SHEET: 4

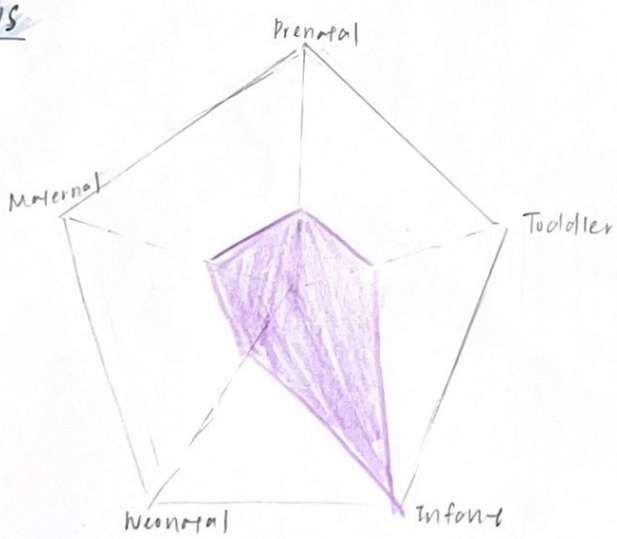
TASK: Death and its Leading Cause in Malaysia

OPERATION



- Clicking on the state will turn the remaining unselected states to light grey
- use drop down menu to select the state to view
- Varying the slider to choose the Ranking to be displayed

FOCUS



States: Johor

- Shows the comparisons of death rate across different life stages (childhood) and maternal death of all Malaysia states
- Only show 1 state at a time as 13 states may cause too high cognitive load

DISCUSSION

Advantages

- Layout is well-balanced with the dashboard structuring all the columns and paragraphs left and right equally.
- looks visually appealing as more visualisations than the text paragraphs

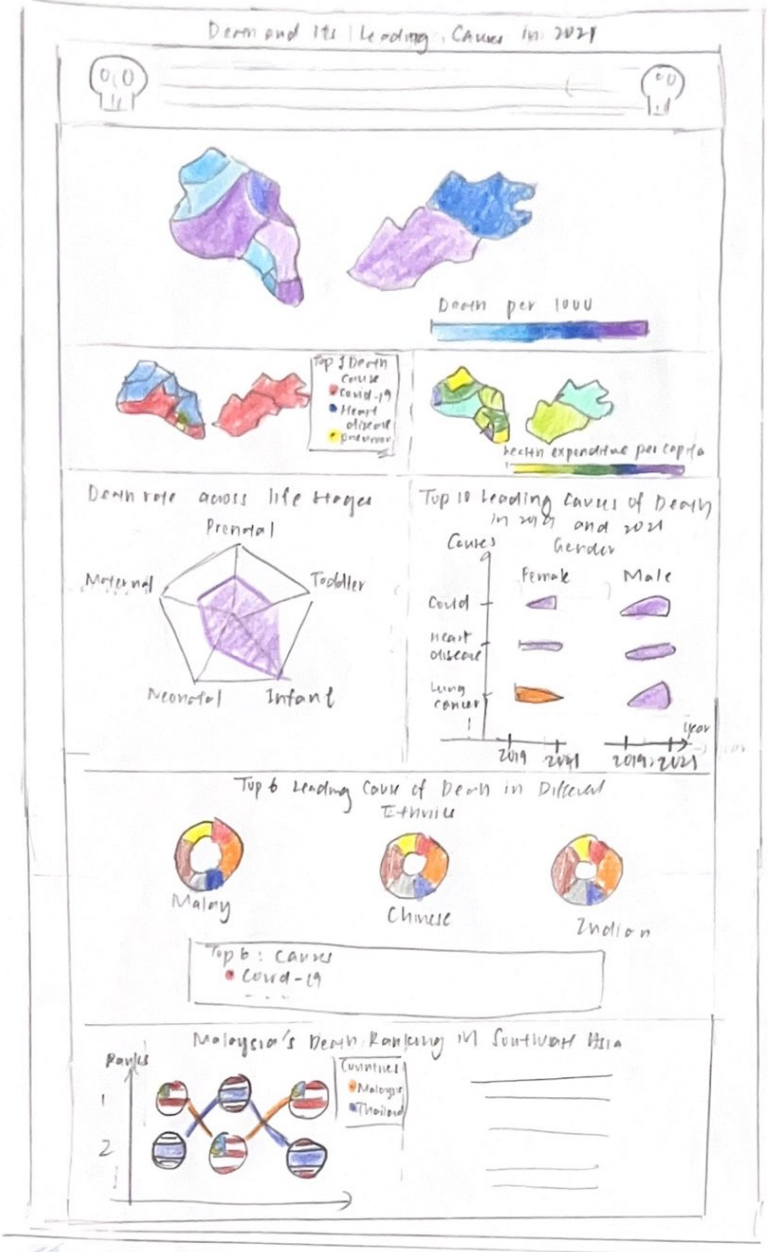
Disadvantages

- Too many visual elements may may be hard to align them with the right lines
- Bump chart with country flag may cause chart junk and low data ink ratio

TITLE: Dashboard View
AUTHOR: Chan Kin Hou
DATE: 14 October 2024
SHEET: 5
TASK: Final Dashboard Design

LAYOUT

Dashboard View



OPERATION

1. Clicking on the state turn the remaining unselected states to light grey

2. - Use drop down menu to select the state to view

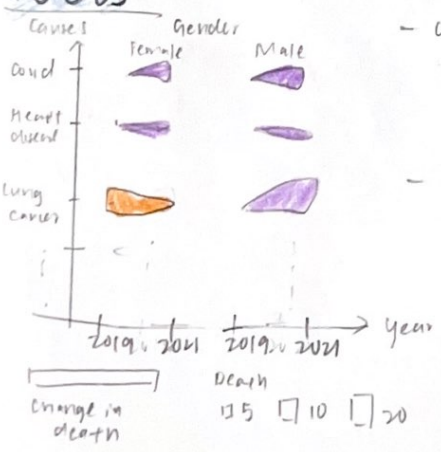
3. - Varies the slider to choose the top k ranks to be displayed

DETAIL

- Dependencies
  - Vega-lite for visualisation,
  - html and css for dashboard
  - Python for data preprocessing

- Estimated time and effort
  - 4 days for data collection and preprocessing
  - 7 days for building each columns and dashboard
  - 2 days for maps
  - 3 days for bump charts
  - 2 days for other idioms and dashboard

FOCUS



- connect chart to compare change in death rate across two years between the genders
- Use diverging color scheme with 0 in between showing no change in death