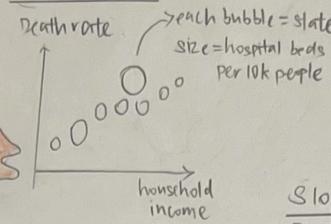


IDEAS

Choropleth map



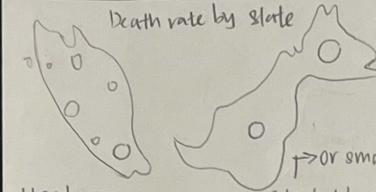
Bubble chart



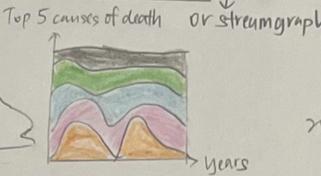
Bump chart



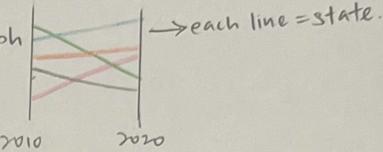
Proportional Symbol Map



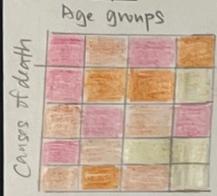
Stacked area chart



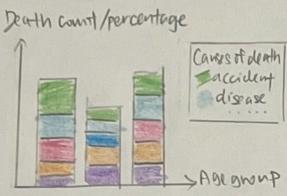
Slope chart or connected dot plot



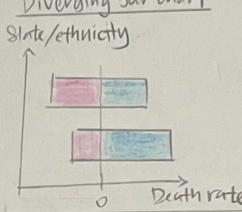
Heatmap



Stacked bar chart

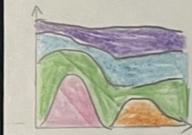


Diverging bar chart

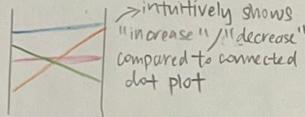


FILTER

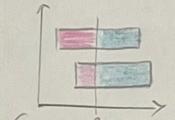
Top 5 causes of death over time



Death-rate change between 2 year for each state.



Male vs Female death rates across states



easier to see which sex has higher death rates compared to slope/connected dot plot.

Death composition of leading causes for each age group



better for comparing the share of each cause than small multiple of bar charts.

CATEGORIZE

Maps

- death rates by state
- median income by state
- hospital beds per 10k by state

Time series composition

- Top 5 causes of deaths over years.

Bubble/scatter

- Death rate vs Income
- Beds per 10k vs death rate

Bars

- Male vs female death rates across states/ethnicity.

Dots & lines

- death percentage per leading causes per age group.

change in state death rates between 2 years.

death rate between male & female for each state.

COMBINE & REFINER

① Geographic → Choropleth (death rates by state), proportional symbol map (hospital bed per 10k by state)

② Equity & resources → bubble chart (death rate vs income), scatter plot (beds per 10k vs death rate)

③ Demographic disparity → Diverging bar chart (male vs female death rate), stacked bar chart (cause x age group), heatmap (causes x age group)

④ Trends over time → Stacked area chart (top 5 causes), bump chart (state death rate rank), slope chart (death rate)

QUESTION

① Does the combination of charts form a coherent narrative flow?

② Does adding a proportional symbol layer on top of a choropleth risk visual clutter?

③ Will the target Malaysian audience easily grasp each idiom without extra explanation?

LAYOUT

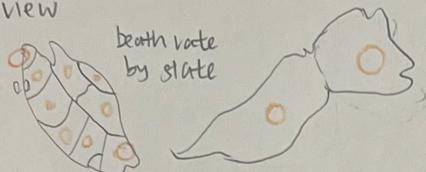
MAPPING DEATH, INEQUALITY & HEALTHCARE ACCESS IN MALAYSIA

12
deaths

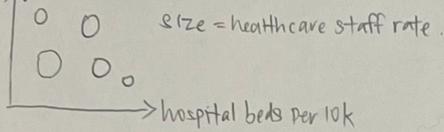
34
Median household income

56
healthcare staff

Overview

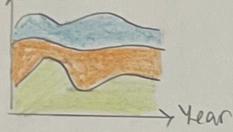


Equity lens

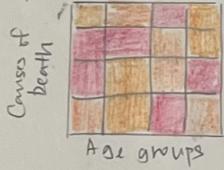


Causes over time

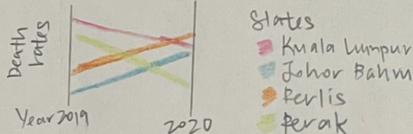
Top 5 causes of death



Demographic lens



How have death rates changed?



DISCUSSION

Pros:

- Balanced storytelling
- Data remains comparable via shared rate metric
- Each chart answers a different question.

Title: Mapping Death, Inequality & Healthcare Access in Malaysia.

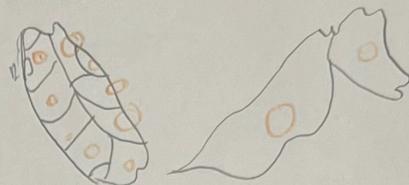
Author: Lee Suet Yee

Date: 21/10/2025

Sheet: 2

Task: Visualise Malaysia Mortality

FOCUS



Deaths per 1,000 population

→ Classify the death rates using natural breaks.



Tooltips:

State: Kuala Lumpur
Death rate: 5.9
Year: 2020

On hover, show the respective tooltip.

OPERATIONS

- Year Slider for choropleth map.
- Year slider for stacked area chart.
- Tooltips - showing raw numbers and/or percentages.
- If user selects a cause, then the same cause will be highlighted across all charts.

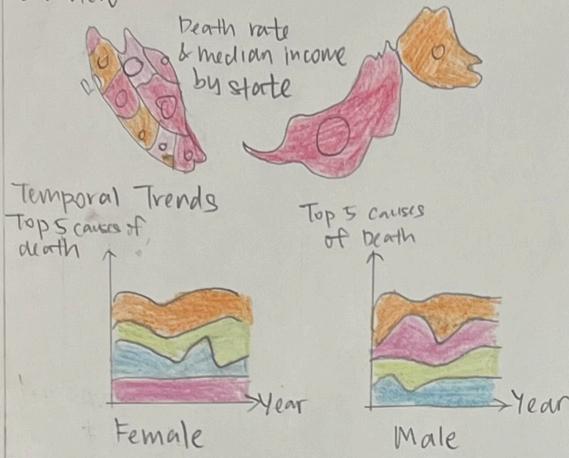
Cons:

- Dense page
- Labels are complicated, may lead to visual fatigue.

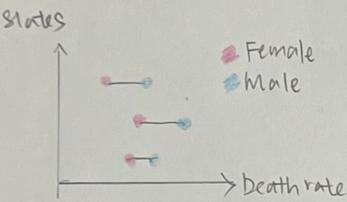
LAYOUT

FROM TREND TO DRIVERS:
HOW MALAYSIA'S MORTALITY EVOLVED

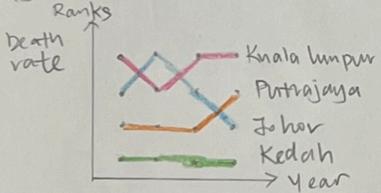
Overview



Demographics



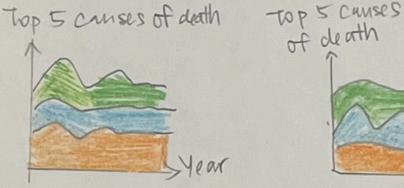
Ranks



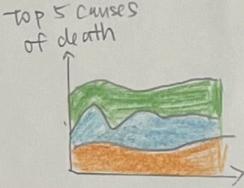
FOCUS

x =year, y =death rates, color=cause

Female



Male



- shared legend
- aligned axes for comparison
- shown when hover

Tooltip =

Sex: Female
Year: 2019
Cause: accident
Death rate: 5.9

Title: From Trend to Drivers: How Malaysia's Mortality Evolved
Author: Lee Suet Yee
Date: 21/10/2025
Sheet: 3
Task: Visualise Malaysia Mortality

OPERATIONS

1. Tooltips: showing sex, year, cause & share % etc.
2. If a cause is selected, then the same cause will be highlighted across all charts.
3. If users select a line in bump chart, then the line will be highlighted.

DISCUSSION

Pros:

- ① Clear storytelling through time
- ② Gender comparison adds depth.
- ③ Visual variety without chaos: Each idiom answers a different question.

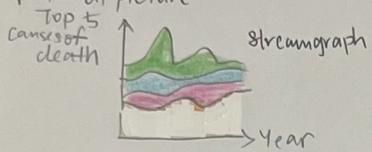
Cons:

- ① Stack area chart can be misread if baseline is not fixed.

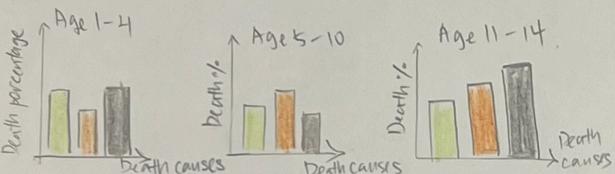
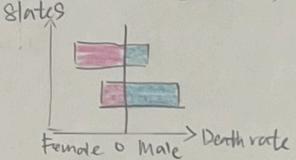
LAYOUT

FROM PRIVES TO DISPARITIES = EXPLORING MALAYSIA'S MORTALITY

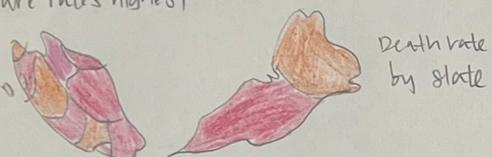
National picture



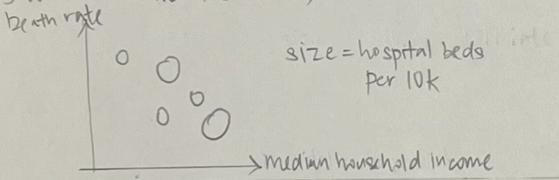
Who is affected? (Demographics)



Where are rates highest?

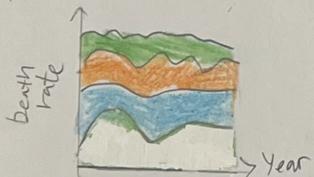


Why do states differ? (drivers)



FOCUS

Top 5 causes of death



Streamgraph

Stack area

→ Toggle to switch to stacked area chart for a clearer baseline.

Tooltip:

Causes = road accident
Death rate = 12
Year = 2018

→ On hover, show the death rate by cause & year.

Title: From Drivers to Disparities: Explaining Malaysia's Mortality

Author: Lee Suet Yee

Date: 21/10/2025

Sheet: 4

Task: Visualise Malaysia Mortality

OPERATIONS

1. Tooltips: showing state names, death rates, hospital beds per 10k population etc.

2. If user clicks on a state, then the state is highlighted across all other charts.

3. Toggle between streamgraph & stacked area chart.

④ If user selects a cause, then the same cause will be highlighted across all charts.

DISCUSSION

Pros:

① Cohesive narrative: what → who → where → why

② Smooth visual progression from macro to micro perspective.

Cons:

① Size of bubbles may not be obvious for comparisons.

② Streamgraphs can be harder to interpret.

LAYOUT

TRACING THE CHANGING FACES OF MORTALITY IN MALAYSIA

12 Deaths

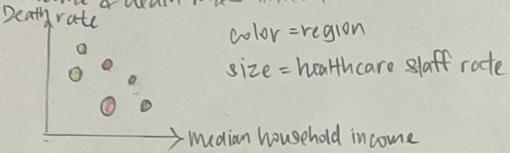
RM34 Median income

56 Healthcare Staff

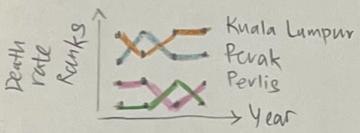
Overview



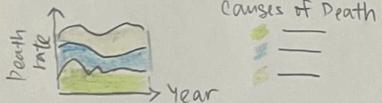
How are income & death rates linked



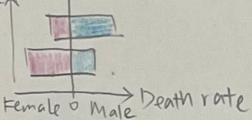
How ranks changed



What's killing us?



Demographics



DETAIL

① Software = Vega-Lite v5 (JavaScript library),
Pure.css, VS Code, Python / Excel
for data processing.

② Estimated time / effort

- Data preparation & cleaning = 1 day
- Vega-lite development = 4 days
- Web page construction = 2 days
- Design refinements = 1 day

Title: Tracing the Changing Faces of Mortality in Malaysia.

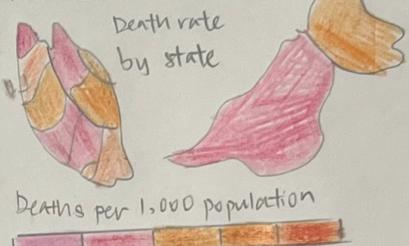
Author: Lee Suet Yee

Date: 21/10/2025

Sheet: 5

Task: Visualise Malaysia Mortality

FOCUS



↳ Classify the death rates using natural breaks.

Tooltip:

Year = 2020

State = Kuala Lumpur

Death rate = 4.6

Rank = 10

On hover, show the death rate & rank by state.

OPERATIONS

1. If user select a line in bump chart, the selected state will be highlighted across all other charts.

2. Label the rank value on the point of the latest year in bump chart.

3. Area chart annotations: Text call-outs for major cause shifts.