

Data Visualisation 1 Proposal

DOMAIN

Public Health, focusing on birth and mortality statistics. The domain covers key areas of interest, including understanding the rates of births and infant deaths in Malaysia, as well as identifying trends over time.

WHY?

TASK:

- Provide valuable insights into trends and patterns in birth and infant mortality data by examining these trends over time.

Target Audience:

- This information is crucial for public health officials, healthcare providers, researchers, and policymakers to make data-driven decisions aimed at improving maternal and infant health outcomes.
- This visualization can also help raise awareness about infant health issues among secondary audiences, such as educators and students in health-related fields, journalists, and the general public interested in public health trends.

DATASETS

Authors:

These datasets are typically compiled and published by the Ministry of Health (MOH) and the National Registration Department (JPN). The datasets can be found on Malaysia's official open data portal. All records in the datasets span from January 1, 2000, to January 1, 2022.

List of datasets used:

- Annual Live Births

Sources: https://data.gov.my/data-catalogue/births_annual

- Annual Deaths

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Sources: <https://data.gov.my/data-catalogue/deaths>

- Annual Prenatal Deaths (including stillbirths)

Sources: https://data.gov.my/data-catalogue/deaths_perinatal

- Annual Neonatal Deaths

Sources: https://data.gov.my/data-catalogue/deaths_neonatal

- Annual Infant Deaths

Sources: https://data.gov.my/data-catalogue/deaths_infant

- Annual Stillbirths (for data cleaning purposes only)

Sources: <https://data.gov.my/data-catalogue/stillbirths>

Note:

Total births: Live births + Stillbirths

Perinatal death: Deaths occurring in the first seven days of life after birth (at least 22 weeks of pregnancy) AND with birth weight equal or more than 500gm.

Neonatal death: Deaths among live births during the first 28 days of life, with birth weight equal or more than 500gm.

Infant death: Deaths among live births aged less than 1 year old.

Credit: [GUIDELINES FOR STILLBIRTH AND UNDER FIVE MORTALITY REPORTING SYSTEM](#) by the Ministry of Health Malaysia

DESIGN IDEAS

Below are the potential charts to use in the project:

- Trends in Birth and Death Rates Over Time (Line Graph)
 - Shows the trends in live births and various death rates across multiple age groups (prenatal, neonatal, and infants more than 1 month old) over the years
 - X-axis: Months; Y-axis: Number of infants

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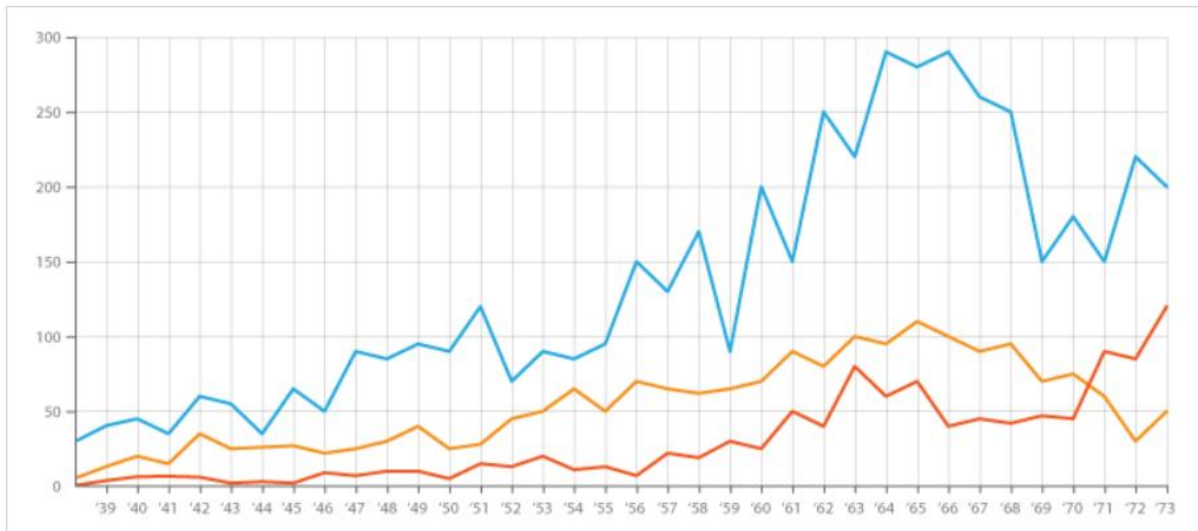


Fig. 1: Sample line chart. A similar line chart will be used in the visualization.

- Proportion of Different Death Categories (Stacked Bar Chart)
 - Illustrates the composition of different death categories from 2000 to 2021 (e.g., infant deaths less than 7 days old, less than 28 days old, and between 1 month and less than 1 year old)
 - X-axis: Years; Y-axis: Number of infants
 - Note: The latest records were updated until January 1, 2022. Therefore, we do not have sufficient data for 2022 to include in the visualization.

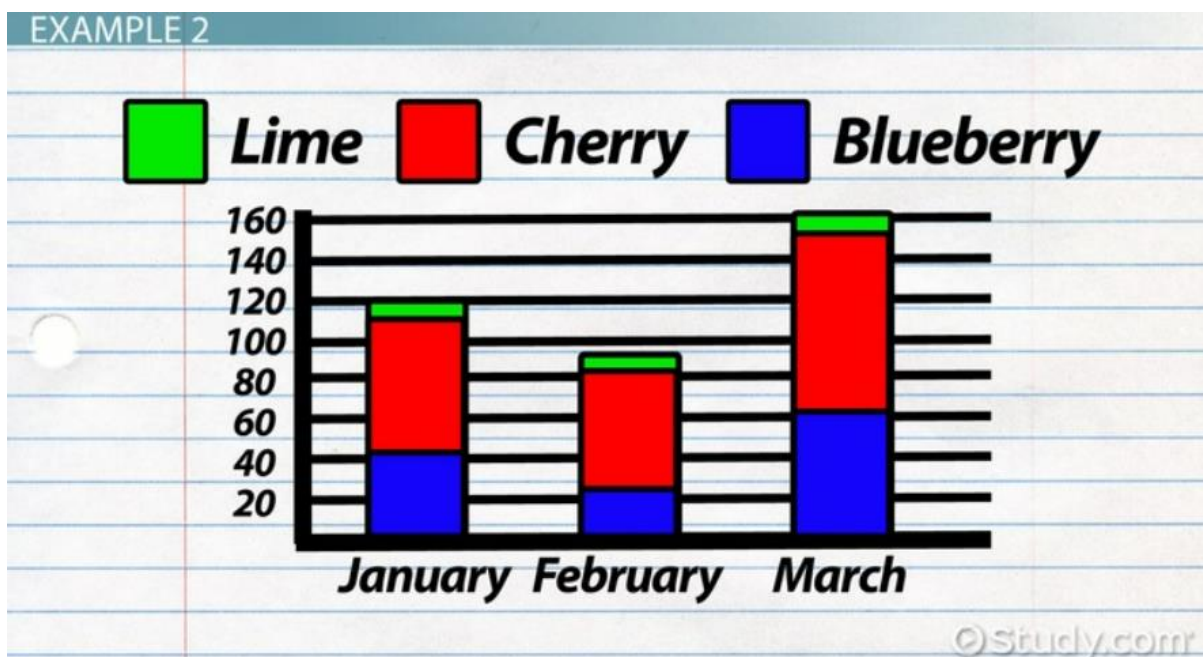


Fig. 2: Sample stacked bar chart. A similar chart will be used in the visualization.

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- Proportion Between Annual Death Rates and Infant Death Rates (Pie Chart)
 - Analyzes/compare the overall relationship between death rates and different infant mortality rates (aged less than 1 year old, not including stillbirths)
 - Pie Chart: Provides a visual representation of the proportion of infant deaths within the total death count from January 1, 2000, to January 1, 2022

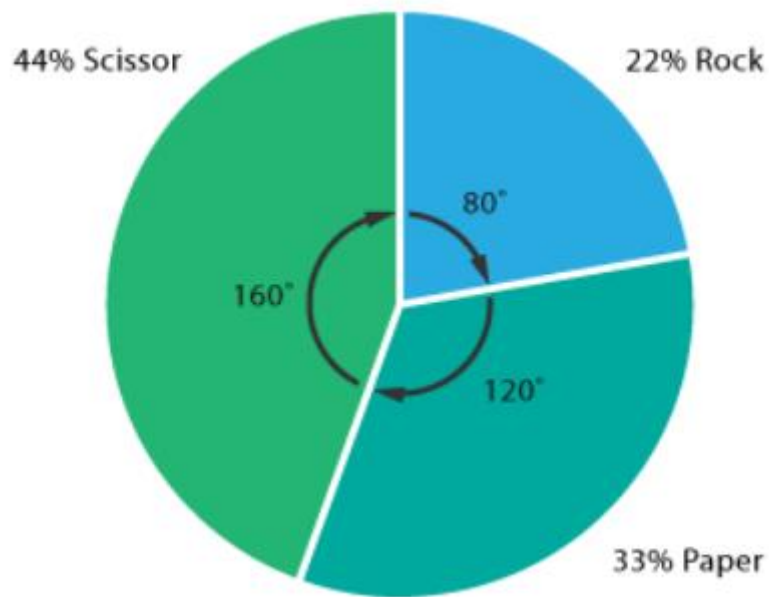


Fig. 3: Sample pie chart. A similar pie chart will be used in the visualization.