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# EXPLORING DENGUE IN TAIWAN: UNRAVELING TAIWAN'S OUTBREAK PATTERN

ISSS 608 Visual Analytics and Application

Group 12

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# HELLO THERE! WE'RE BUZZZZ LIGHTYEARS



This user guide will provide step-by-step instructions on how you can best navigate our Shiny application.

There are a total of 3 tabs:

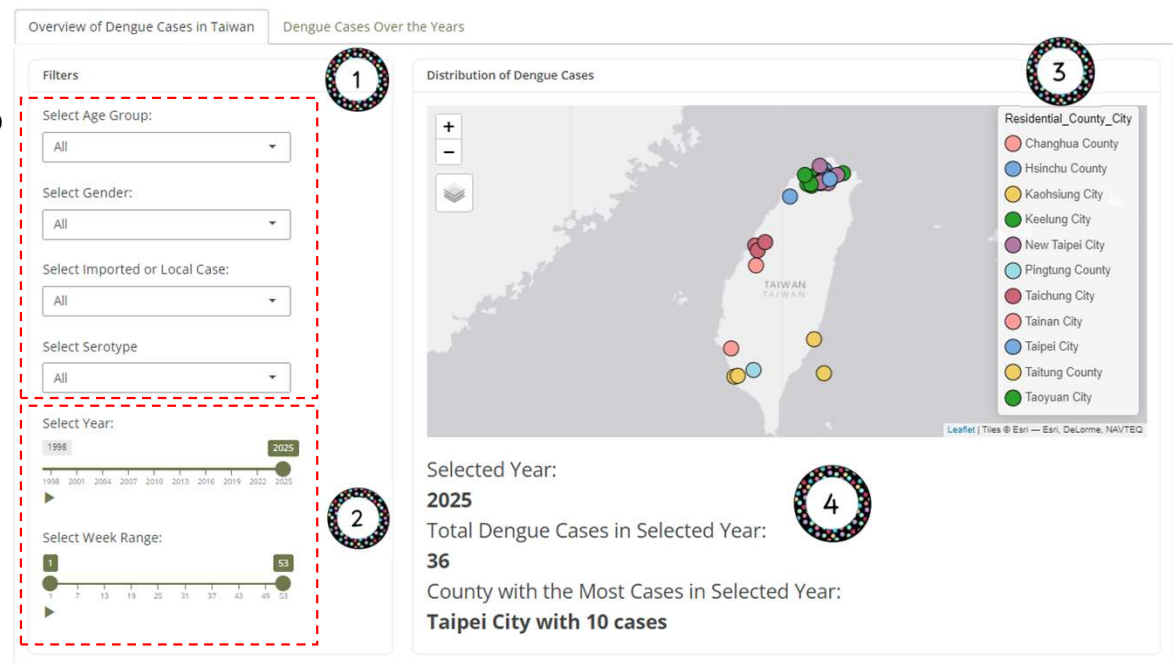
1. Overview
2. Confirmatory Data Analysis
3. Time Series Analysis



# OVERVIEW: OVERVIEW OF DENGUE CASES IN TAIWAN

This tab allows users to view the distribution of dengue cases on a map of Taiwan.

1. Drop-down selections that allow users to choose the variable(s) they wish to visualize.
2. Year and week range toggle to filter dengue cases by the selected period.
3. Map region that displays the geographic distribution of cases.
4. Summary section that highlights the top dengue case counts and the county with the highest number of cases in the selected year.



# OVERVIEW: DENGUE CASES OVER THE YEARS

This tab displays the number of dengue cases based on the selected variable using bar and line charts.

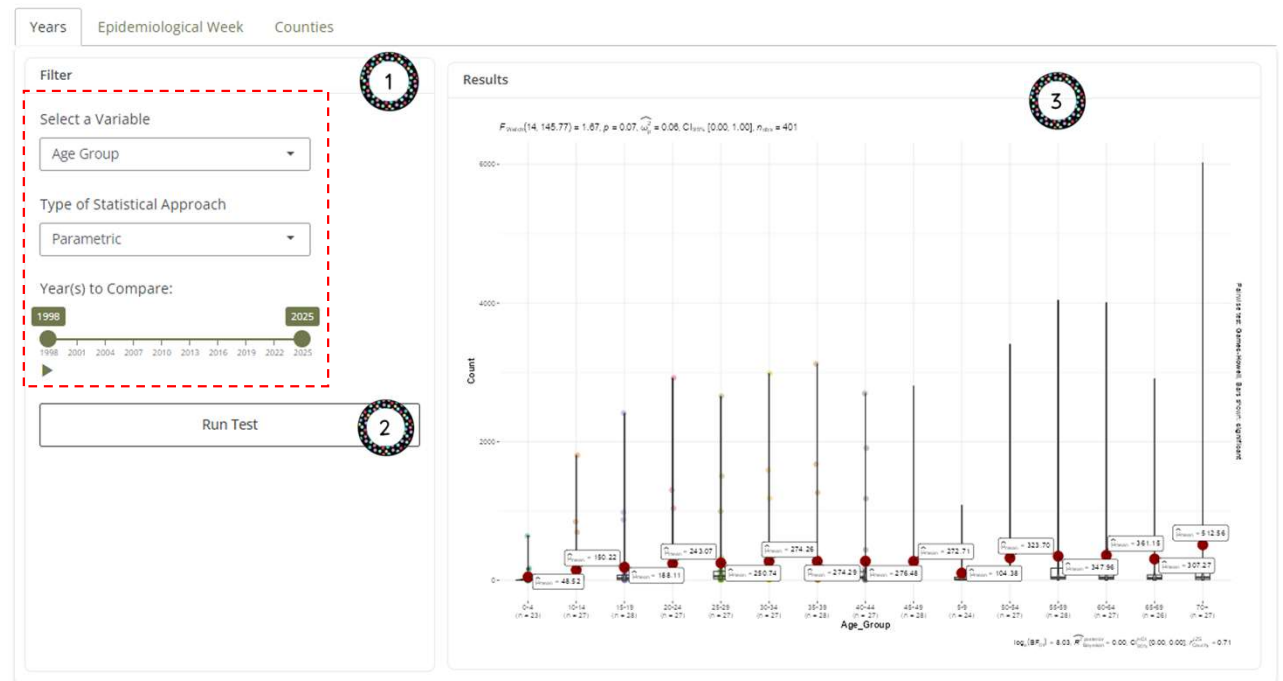
1. Drop-down selections that allow users to choose the variable they wish to visualize.
2. Year range toggle to filter dengue cases for the selected period.
3. Bar chart that shows the distribution of dengue cases.
4. Line chart that presents the trend of dengue cases over time.



# CONFIRMATORY DATA ANALYSIS: YEARS

This tab presents the significance test results for the selected variable, grouped by years.

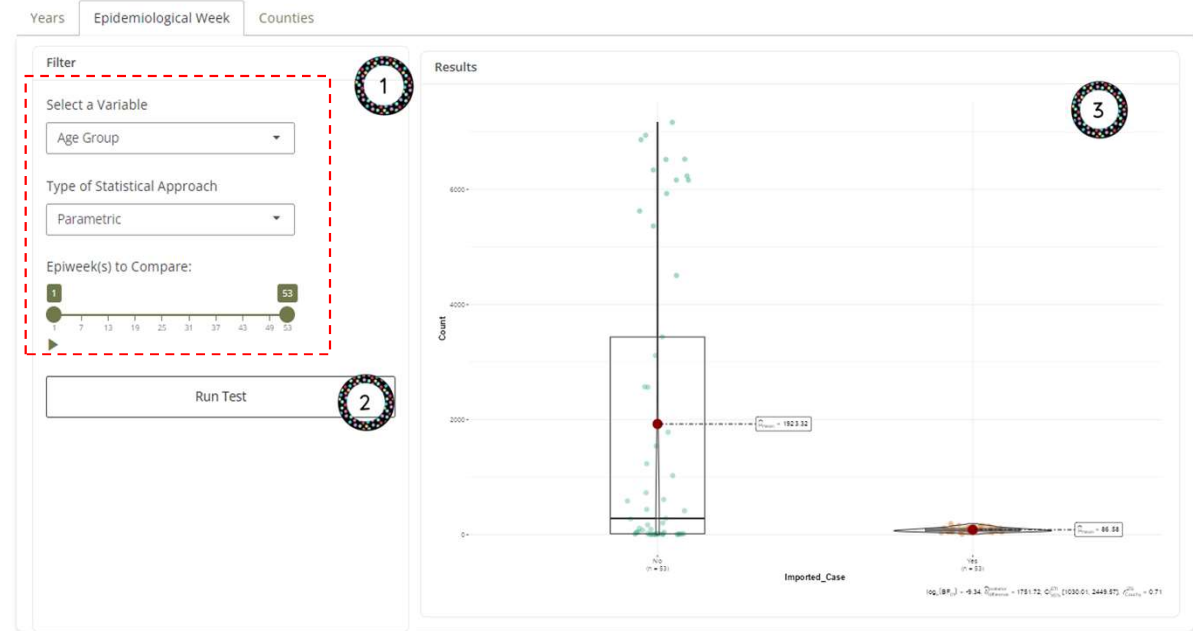
1. Drop-down selections and a year toggle that allow users to choose a variable, select a statistical approach (parametric and non-parametric), and toggle the years to visualize.
2. Run test button that initiates the comparison.
3. Chart area that displays the statistical test results.



# CONFIRMATORY DATA ANALYSIS: EPIDEMIOLOGICAL WEEK

This tab presents the significance test results for the selected variable, grouped by epidemiological week.

1. Drop-down selections and a week toggle that allow users to choose a variable to visualize and select a statistical approach (parametric and non-parametric), and toggle the epiweek range to visualize..
2. Run test button that initiates the comparison.
3. Chart area that displays the statistical test results.



# CONFIRMATORY DATA ANALYSIS: COUNTIES

This tab presents the significance test results for the selected variable, grouped by counties.

1. Drop-down selections that allow users to choose a variable to visualize and select a statistical approach (parametric and non-parametric).
2. Run test button that initiates the comparison.
3. Chart area that displays the statistical test results.

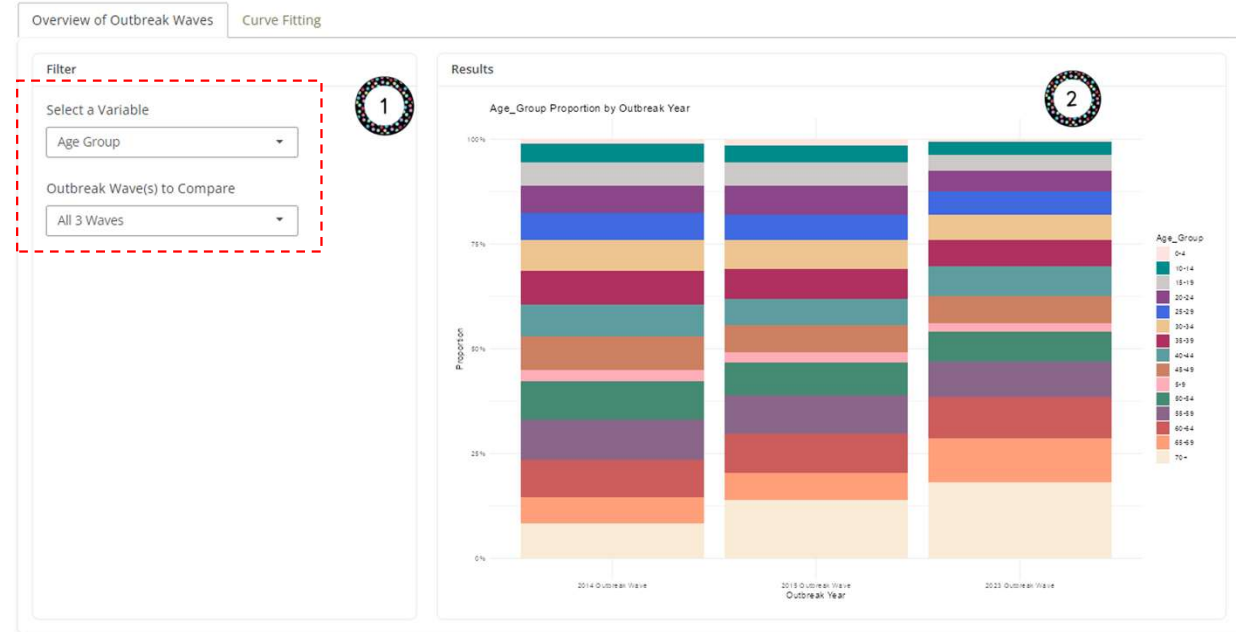


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# TIME SERIES ANALYSIS: OVERVIEW OF OUTBREAK WAVES

This tab presents the EDA for the selected variable and outbreak waves.

1. Drop-down selections that allow users to choose a variable and outbreak wave(s) to visualize .
2. Bar chart that displays the dengue cases for the selected outbreak wave(s).





# TIME SERIES ANALYSIS: CURVE FITTING

This tab presents the curve fitting results for the outbreak waves.

1. Drop-down selections that allow users to choose the model, curves, training data and actual wave data for comparison.
2. Chart area to display selected plot(s).
3. Goodness-of-fit plot(s) to visualize the performance of the selected model(s).



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# THANK YOU!

TEAM BUZZZZ LIGHTYEARS SIGNING OFF!



WE HOPE YOU ENJOYED UNDISCOVERING DENGUE CASE PATTERNS IN TAIWAN WITH OUR SHINY APP!

