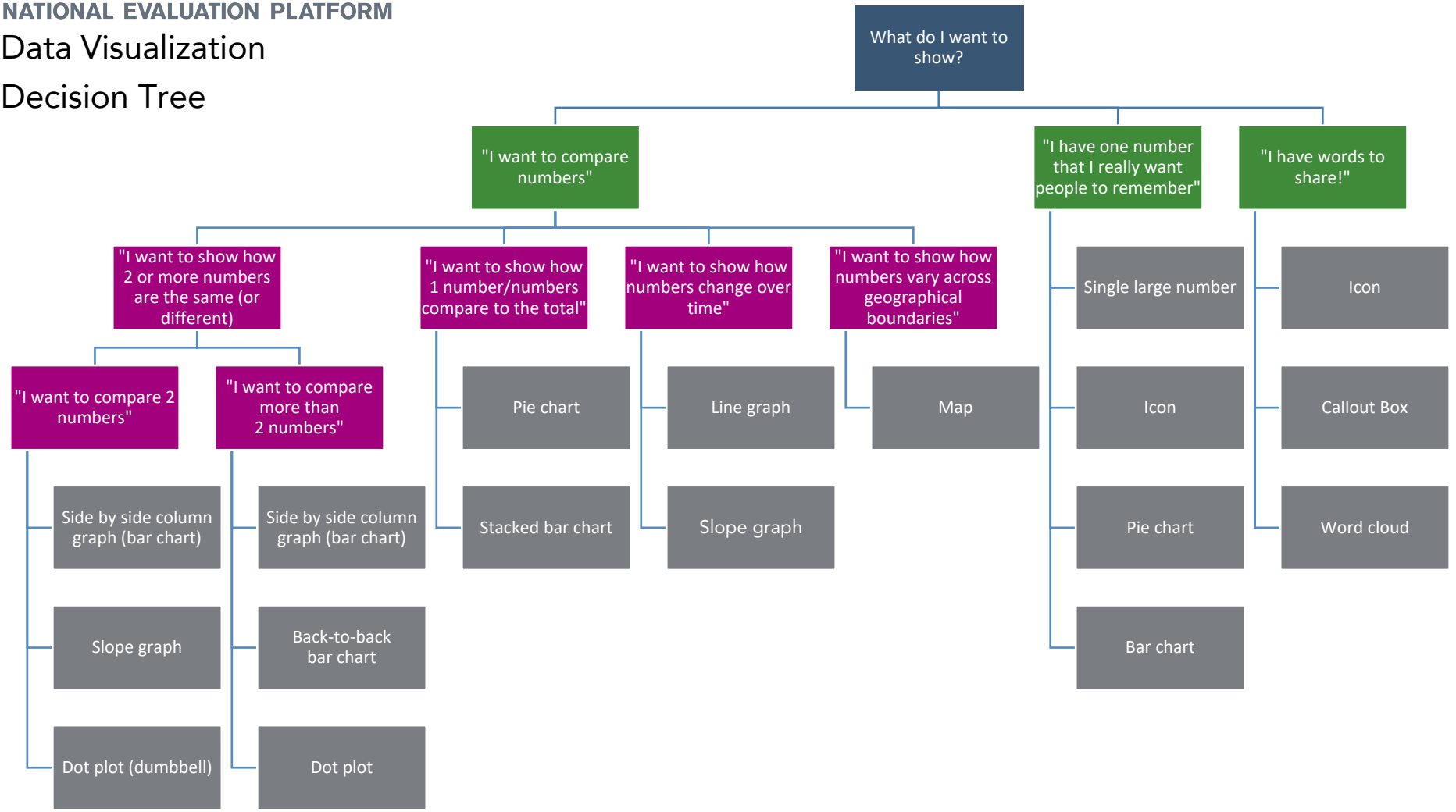
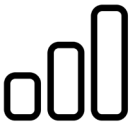
NATIONAL EVALUATION PLATFORM

Data Visualization Decision Tree



This data visualization guide is intended to help NEP implementing partners visualize data appropriately. This guide draws from resources developed by Stephanie Evergreen (http://stephanieevergreen.com).

Types of Visualizations



Bar charts - use to compare categories of data. Avoid displaying too many columns - use up to 3-5 groups with up to 2 columns per group.

Back-to-back bar charts - use to highlight distributions among categories. Do not use to highlight specific values.

Line graphs - use to show change over time.

Slope graphs - use to compare two groups (e.g. years) and highlight how some categories change differently from other categories.

251,000
lives saved

Single large number - use to highlight one important data point.

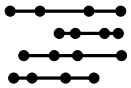
Icons - use to quickly communicate themes and topics. Supplements words and numbers.

Callout box - use to highlight quotes.

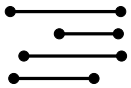
Word cloud - use to represent text frequencies. The size of the word corresponds to the frequency the word appears in text.

Four steps to better data visualizations

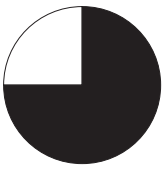
1. Identify your key message.
2. Choose an appropriate type of visualization based on on your key message.
3. Create your visualization and apply the data visualization checklist.
4. Have someone else review your visual to make sure it supports your key message.



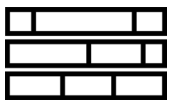
Dot plot - use to emphasize gaps among numbers. Also referred to as "equiplots."



Dot plot (dumbbell) - use to emphasize gap between two numbers.



Pie charts - use to show proportion or highlight one number. Only use when you have 5 slices or fewer and the values of each slice are noticeably different. Do not use for comparisons (e.g. one pie chart vs. another pie chart). Must add up to 100%.



Stacked bar charts - use to show how a number contributes to the total or the proportion a number contributes to a total ("100% stacked bar chart").

Maps - use to compare data across geographical boundaries.

Data visualization checklist ☑

Overall

1. Does the visualization highlight an important finding or conclusion? (If it doesn't show an important finding, the graph shouldn't exist!)
2. Is the type of visualization selected appropriate for the data and key message?

Text

1. Is there a descriptive title?
2. Are the axes labelled?
3. Is the font readable when printed and on a presentation screen?
4. Are data labeled directly (when possible)?
5. Do the axes start at 0?
6. Is there any unncessary clutter (more labels than necessary) on axes?

Colors

1. Do the colors match the government institution or organization?
2. Do the colors highlight key patterns?
3. Are the colors readable when printed in black and white and on a presentation screen?

Lines

1. If gride lines are present, are they faint?
2. Are tick marks present? (except for line graphs, they are usually unnecessary)