### **Simplifying Data Visualization**

The purpose of data visualization is to share your needs, outputs, outcomes, and impact with stakeholders in a visual, easy to understand way.

Many stakeholders, especially funders, students, and academics, may trust data presented in charts and graphs more than they trust text. For others, data visualization will be more interesting and engaging.



### **Tips for Data Visualization**

- Only use data visualization tools if you cannot explain the same information more eloquently in words.
- Ocllect relevant data from needs assessments and throughout the program planning, implementing, monitoring, and evaluation processes.
- Store your data in excel or google spreadsheets
- Make sure to clean your data set before you start analyzing it.
- Match the type of data to the correct data visualization method.
- Use titles for graphs, charts, and tables to make the purpose/takeaway clear to readers.

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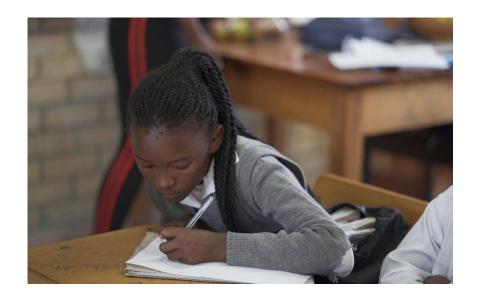
- Use a key to make charts and graphs more readable.
- Use colors to differentiate subgroups.
- When using colors, make sure none of the colors look similar. For example: don't use 5 shades of red in the same chart.
- Keep your charts, graphs, tables, and infographics as simple and readable as possible.
- Charts, graphs, tables, infographics, and text should complement each other rather than explaining the same information in multiple ways.



Use www.canva.com for making free infographics.

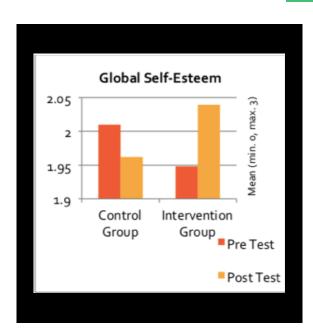
You can make simple graphs and charts in **Excel** or **Google**.

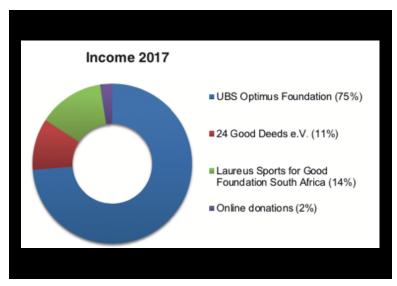
Use **www.tableau.com** for making free data visualization tools when you have lots of data.



### **Matching Data to the Correct Visualization Method:**

#### **Charts**





**Bar Chart** 

## When do you use charts?

- Use for percentages/parts of a whole
- Discrete quantitative data

#### Where do you use charts?

- Scientific Journal
- Funding Reports
- Board Reports

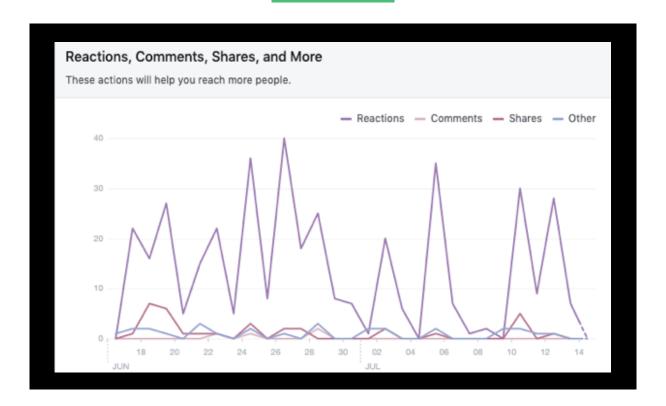
## Pie Chart

## Example of how to use charts:

To compare program participants' pre and post test results in a bar chart



### **Graphs**



Line Graph

### When do you use graphs?

- Use to show change over time
- Continuous quantitative data
- When range or distribution is important

# Examples of how to use graphs:

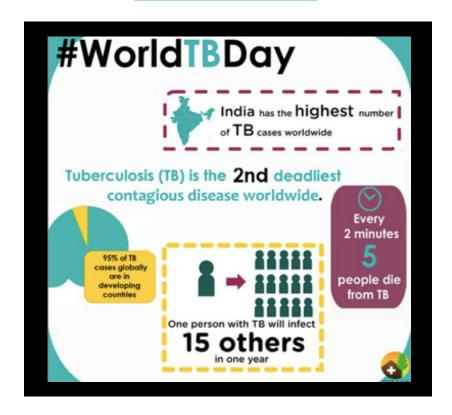
- To track height and weight of participants in your preschool
- To track the analytics of a social media post

### Where do you use graphs?

- Scientific Journal
- Funding Reports
- Board Reports



### **Infographics**



### When do you use infographics?

- Qualitative data
- Outputs & other non-comparison data

#### Where do you use infographics?

- Social Media
- Annual Report
- Printed Reports
- Website

# Example of how to use infographics:

For scial media posts made in Canva representing outputs (# of patients treated or # students reached...)



#### **Tables**

Table 1. Random Capillary Blood Glucose Scores Broken Down by Already Diagnosed Diabe	etes Patients
Versus High Risk Individuals That Have Previously Not Reen Diagnosed with Diabetes	

Random Capillary Blood Glucose Score	Already Diagnosed Diabetes Patients	High Risk Individuals (Exclusive of Already Diagnosed Patients)	Totals
≤70	n=13 (range 47 mg/di-70 mg/di)	n=66 (range 49 mg/dl-70 mg/dl)	n= 79
70 <x<100< td=""><td>n=39 (range 72 mg/di-98 mg/di)</td><td>n= 476 (range 71-99)</td><td>n=515</td></x<100<>	n=39 (range 72 mg/di-98 mg/di)	n= 476 (range 71-99)	n=515
100≤x<140	n= 59 (range 101 mg/dl-139 mg/dl)	n=643 (range 100-139)	n= 702
140≤x<200	n=74 (range 140 mg/dl-195 mg/dl)	n=238 (range 140 mg/dl-200 mg/dl)	n= 312
≥200	n=93 (range 201 mg/dl-564 mg/dl)	n=97 (range 201 mg/dl-926 mg/dl)	n=190
Totals	n=278	n=1,520	n=1,798

### When do you use tables?

- Use for wordy information
- Use to organize more than a few comparable topics
- Presents exact values

### Where do you use tables?

- Scientific Journal
- Funding Reports
- Board Reports

## Example of how to use a table:

To outline demographic information about your study population.

