DoD GHE Snapshot

ENHANCING THE MESSAGE: ESSENTIAL TIPS & TRICKS FOR DATA VISUALIZATION

Written by: Haley Bockhorn, MPP [1]

The Uniformed Services University of the Health Sciences' (USU's) Center for Global Health Engagement (CGHE) is pleased to share the third issue of the Department of Defense Global Health Engagement (DoD GHE) Snapshot. The DoD GHE Snapshot is intended to create self-publishing opportunities for GHE professionals to share knowledge and experiences and learn from one another in real time. We hope you enjoy and please refer to our social media and website for real time updates.

ENHANCING THE MESSAGE: ESSENTIAL TIPS & TRICKS FOR DATA VISUALIZATION

Data visualization, or representing key data through graphics like charts, trees, or graphs, is an increasingly popular tool in data analysis. Aside from quickly drawing one's eye, visualizations package the results of complex analyses into more manageable pieces of information, making findings readily available to experts and novices alike.

With the increased reliance on visualization as an analytical tool, as well as the widespread availability of visualization software, it is imperative that these graphics accurately detail data. Three of USU's CGHE's tips and tricks to produce insightful, compelling visualizations are outlined below.[1]

BLUF (BOTTOM LINE UP FRONT)

Key takeaways should be the first thing—and only thing—a visualization communicates to viewers. Visualizations are useful tools because they quickly convey the most important information from an analysis. If it takes longer than five seconds[2] for a viewer to understand what a visualization is saying, consider changing the graphic. Also make sure the type of visualization selected best portrays your findings; line graphs are often utilized to convey data trends (e.g. a change over time), but in some cases a scatterplot is more effective, especially with large datasets or in instances where you want to emphasize outliers.
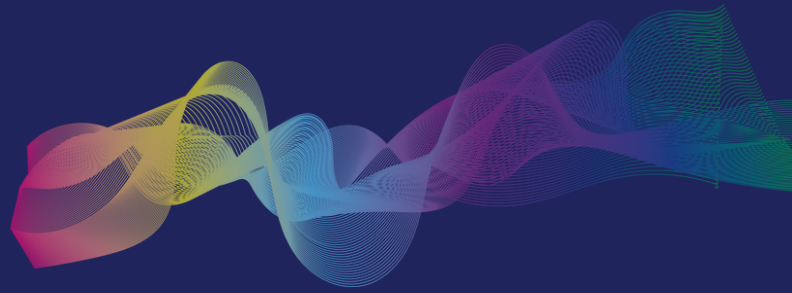
KNOW THE DATA

In order to accurately and effectively illustrate findings, it is essential to understand the cornerstones of your analysis. This means knowing the type of data you are working with, as the data points themselves can be just as important as the insight you wish to depict. Is your data qualitative or quantitative? Is it continuous or categorical? Be sure to consider this as you create your graphic. For example: qualitative themes are often displayed as a word tree, categorical data is displayed as a pie chart or bar chart, and continuous data is displayed using a histogram or line graph.

USE COLOR WISELY

Color is a valuable tool and should not be overlooked. You can use color to direct a viewer's eye to a particular finding, or use gradient coloring to indicate a scale of more to less. That said, be mindful of the way color is incorporated into a graphic; color should always serve a purpose in a visualization. Also be aware of your organization's branding guidelines, as they may require you to stick to a specific subset of colors (which doubles as an easy way to keep graphics uniform and coherent). Data visualization is an incredibly useful tool to communicate the findings of an analysis. While there are many approaches to visualizing data, the best way to ensure you create an effective graphic is to keep things simple, purposeful, and straightforward.

[1] Haley Bockhorn, MPP
Assessment, Monitoring & Evaluation Analyst
Henry M. Jackson Foundation for the Advancement of Military Medicine (HJF), Inc., in collaboration with USU's CGHE

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2. UsabilityHub, "Five second testing guide", https://usabilityhub.com/guides/five-second-testing

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