# Delivering Key Messages with a Punch

by Robin Kipke

When it comes time to communicating your results with stakeholders in your community, data visualization can add more power to your punch. Why? Because our eyes are designed to look for and interpret patterns from the information they scan. When organized into visual chunks, our brains can process, absorb and retain information faster and longer. So by following a few design principles, you can combine multiple pieces of data into charts, graphs, maps or diagrams which will have more impact than a summary of findings would have on their own.
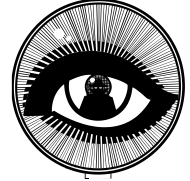
Here are few things you can do to make sure that your audience is drawn to your takeaway message:

The first step is to **decide what your key message is**. What point are you trying to convey with this particular data visualization? To figure this out, you'll have to think about how this visualization will be used, how it will be shared, and for which audience.

Next, **figure out what format is the best fit for the information**. If it is important to show a number of individual data points, then use a table. If you want to illustrate patterns or trends over time, then some kind of graph would be better. Maps are good for comparing conditions in different locations. And figures or diagrams do a good job of summarizing qualitative information in a succinct way to show relationships or processes.
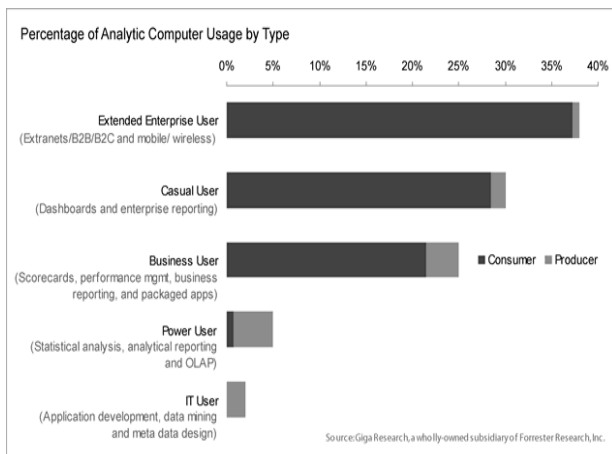

Source: Stephen Few
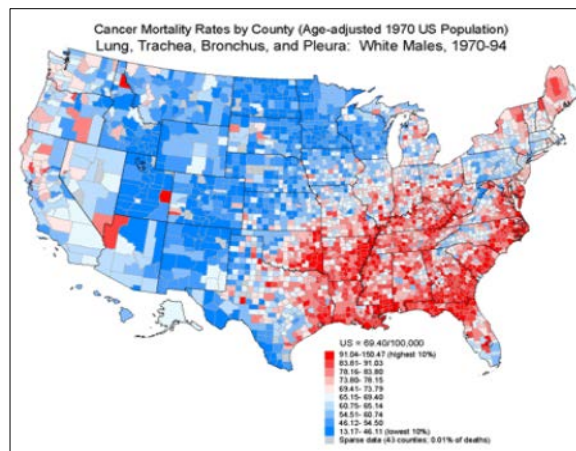
Source: CDC

While visualizations should be standalone pieces that can be understood without a supplementary narrative, **don't try to cover everything in one display**. Only include what is necessary to convey your key point. If needed, break the information into smaller chunks as separate visualizations so that each clearly portrays its own key message.
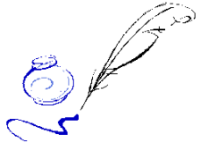
Minimize "non-data ink" – anything not essential to getting across your primary message. Avoid cutesy or artistic flourishes that serve no other purpose. Your ultimate goal is not to make a cool graphic, but to help viewers focus in on that key finding you want them to understand and act on. For every element, ask yourself if the visualization will become less clear if you remove it.

Be sure to **represent the data accurately**. Always start at the zero point on both axes. Otherwise differences can be blown out of proportion.

You can, however, **draw the eye to specific pieces of data through the use of color, outlining, bolding, size, etc**. Just watch that you don't create differences that have no significance. Note that the eye is good at discerning differences in length and placement but not so accurate at judging size (area) or color density (saturation).

Source: Storytelling with Data, Cole Nussbaumer
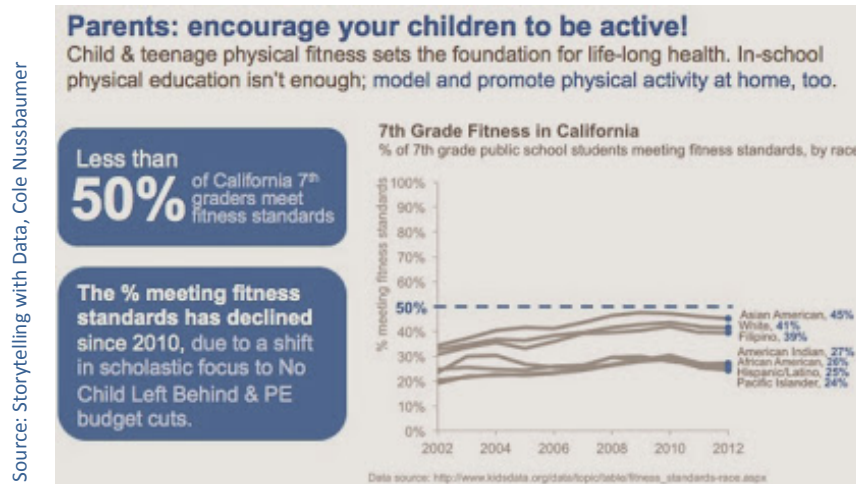
Use clear labels and titles. In fact, the latest trend with data viz titles is to make them like headlines that announce your key message. The old "Figure 1" style wording is better suited for academic research and journals. Supporting detail like sample sizes, methodology, sources etc., belong in supplemental handouts, presenter explanations or in very tiny type at the bottom where it does not visually clutter the visualization.

Creating an effective data visualization is not necessarily intuitive at first. There is a learning curve. But it doesn't take a graphic arts degree or expensive software. By following a few data viz principles, you can create powerful displays with free programs like Excel or Tableau.

For more ideas on data visualization, check the Tobacco Control Evaluation Center website periodically. We've got a new set of video tutorials on how to use Tableau and we'll be adding resources all the time, including a gallery of examples. So stay tuned and happy visualizing!

References: *Visual Communication* by Stephen Few, *What Is Good Visualization* and *Principles of Good Visualization* by OCSI