Techniques for Presenting Data

Below is a list of different techniques for presenting data, with examples of data presentations related to obesity. Remember, the technique you choose will depend on the type of data you have, your target population, and what your goals are in presenting the data. These techniques are not mutually exclusive, and many complement each other nicely.

1) Tell a personal story (photos, testimonials, quotes, videos, artwork, etc.)

Personal stories are an evocative way to get a message to stick. Sometimes charts and numbers can blur together, but a simple story, picture or quote gives a human-scale glimpse of the data. Use a real story about a real person to connect with your audience.

Example 1: In her work on childhood obesity, Michelle Obama frequently recounts the challenges she faced as a working mother - the busy lifestyle of her family meant that her daughters often ate unhealthy (but fast and easy) foods, like pizza. She uses this message to connect with people who are experiencing the same challenges.

Example 2: The billboard to the upper right makes a statement about the impact of food advertising on childhood obesity.

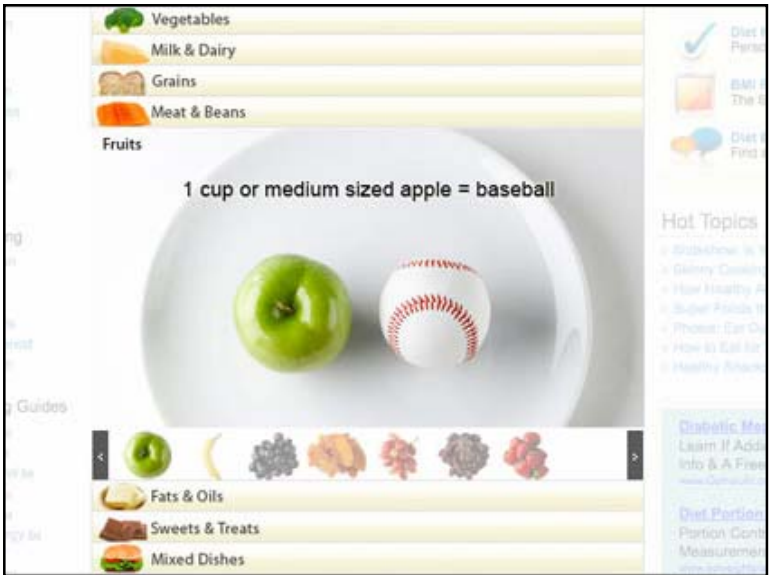
Source:http://static.pyzam.com/img/funnypics/misc/dueling-billboards.jpg

2) 'Physicalize' your data

We live and breathe in a 3-d, interactive world. Take advantage of this fact when presenting your data - making metaphors to physical things the connect with your audiences' everyday experiences. If appropriate be literal in your representations.

Example 1: WebMD, the popular health information website, uses everyday objects like baseballs and dice to illustrate serving size. This helps people understand what 'one medium apple' really means.

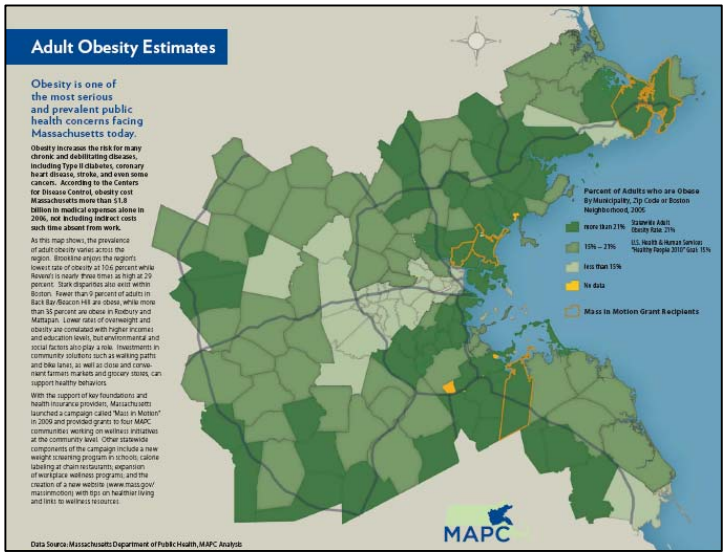
Example 2: Old North Church in Boston hangs dog tags to represent the number of US soldiers killed in Iraq and Afghanistan. Showing the numbers in this way is intended to make an emotional impact on the viewer.



Source: http://www.webmd.com/diet/healthtool-portion-size-plate

3) Map your data

There's just something about maps. For some reason the majority of people respond to maps unlike other visualizations. Maybe it is because we grow up seeing them, or maybe there is something about the representation of a physical space... for some reason people connect to maps. Maps are a great way to localize your data and make it seem relevant. They are also a great way to find patterns and 'hot spots' in your data that are not otherwise apparent. Maps make it easy to compare data from different places, and to compare different types of data for the same place.

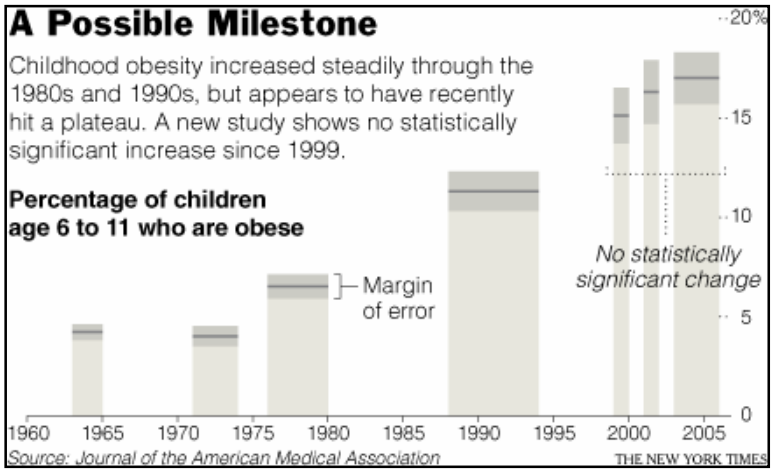


Source:http://www.metrobostondatacommon.org/pdf/Calendar2010_10_Obesity.pdf

Example: The map to the right gives a snapshot of obesity rates in the Metro-Boston area. (Darker green indicates higher rates of obesity.) This map makes it easy to quickly compare rates in different regions. A map like this might be shown alongside another map of Metro-Boston with income data to illustrate the association between obesity and lower incomes. Maps can be made easily using google maps, or even simple pencil and paper. Comparisons can be shown easily and effectively by printing maps on overheads, and overlaying them on top of each other.

4) Chart your data (flow charts, graphs, counts, lists, Venn diagrams, etc.)

Don't underestimate the power of a good graph - sometimes the data tells the story all by itself. There are a wide variety of standard graphing techniques that the majority of the population knows how to read. Graphs can be made more or less complex, depending on your audience and the story you want to tell with the data. This is an amazing tool you can use to a high level or detailed overview of your story.



Source:http://www.nytimes.com/imagepages/2008/05/28/health/28obesity.graphic.ready.html

Example: The bar graph to the right shows childhood obesity rates overtime in the US. This bar graph adds a level of complexity by including a margin of error to show that there was no statistically significant increase in childhood obesity between 1999 and 2005.

5) Put your data in a chart-like format (e.g., pictographs)

Mix up your graphing with pictogram-based charts. Sometimes a regular graph can fall flat. Don't be afraid to sprinkle in some icons (free clip art is easy to find!), or re-think some basic rules of graphing. Just because graphs have been around for hundreds of years doesn't mean you can't improve on them.

Example: The pictographic below shows the rates of obesity in the 50 states. The actual rates are listed as numbers, and the states are ranked from the lowest to highest rates (allowing a quick comparison). The t-shirt color and t-shirt size also indicate relative obesity rates, with darker colors and larger t-shirts indicating higher rates. This pictograph is rich in details but is very easy to read.

Source: http://www.visitmix.com/labs/descry/theobesityepidemic/

6) Get your audience to interact with the data (e.g., games, roll plays, using 'clickers'*)

People remember experiences, and share them as stories with other people. Harness that power by creating and interactive experience to present your data. This could be a game, a question-answer session, or a simple stand-up / sit-down exercise to represent a dataset.

Example: Let's say you're giving a presentation, and you have 10 rows of people in your audience. You ask 4 rows of people stand – these people represent the 40% of Massachusetts adults who were overweight or obese in 1990. You then ask 2 more rows of people to stand (for a total of 6 rows) – the group standing now represents the 60% of Massachusetts adults who are overweight or obese. This engages the audience and helps them experience the data in a way that a graphical representation does not allow.

* 'Clickers' are devices that look like remote controls. Each member of an audience would get a clicker, which they would use to answer questions posed by the presenter. The clickers allow the presenter to gather data from the audience and immediately show them the results, making this an engaging way to both collect data and share it back.