Conclusion

This session covered what infographics are, why they are used, when they are used, and when they shouldn't be used. In general, they may help you identify your audience and goals, communicate data and other health information, reinforce your message visually, educate across barriers, create awareness, and encourage action.

Resource List

For inspiration

- designspiration.com
- good.is/infographics
- DailyInfographic.com
- abdz.do

For design assistance

- infogr.am
- piktochart.com
- easel.ly
- visual.ly

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Author declaration and disclosures: *The author notes no commercial associations that may pose a conflict of interest in relation to this article.*

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Reference

1. Cox LK. Why are infographics so darn effective? [Infographic]. Hubspot website. Updated July 28, 2017. Accessed October 2021. https://blog.hubspot.com/marketing/effectiveness-infographics#sm.0001lqkcekbcccr810862dx9nrvhr

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THE IMPORTANCE OF DATA PRESENTATION

Speaker

Barry Drees, PhD, *Senior Partner, Trilogy Writing & Consulting GmbH, Frankfurt, Germany*

By Sampoorna Rappaz, PhD

The effectiveness of medical communication hinges on both the text and the accompanying data presentation being fit-for-purpose. Dr Barry Drees, in his presentation at AMWA's 2021 Medical Writing & Communication conference, explained how we can fulfill the ultimate purpose of data presentation, which is to tell a story clearly and simply. Using examples from the domain of regulatory writing, scientific communication, and medical and world history, he illustrated how good data presentation can help focus the message, correct misperceptions, and even save lives!

When done well, each element of data presentation within a document communicates 1 main message, which is determined by the question that the data are answering. Identifying this question and the message will help us decide how to best represent the data (Figure). Distinct data presentation types exist, each suited to a unique purpose. Once we have made a choice, we can use logical design principles to highlight and clarify the message.

Design Considerations for Tables

Dr Drees has the following advice for creating tables:

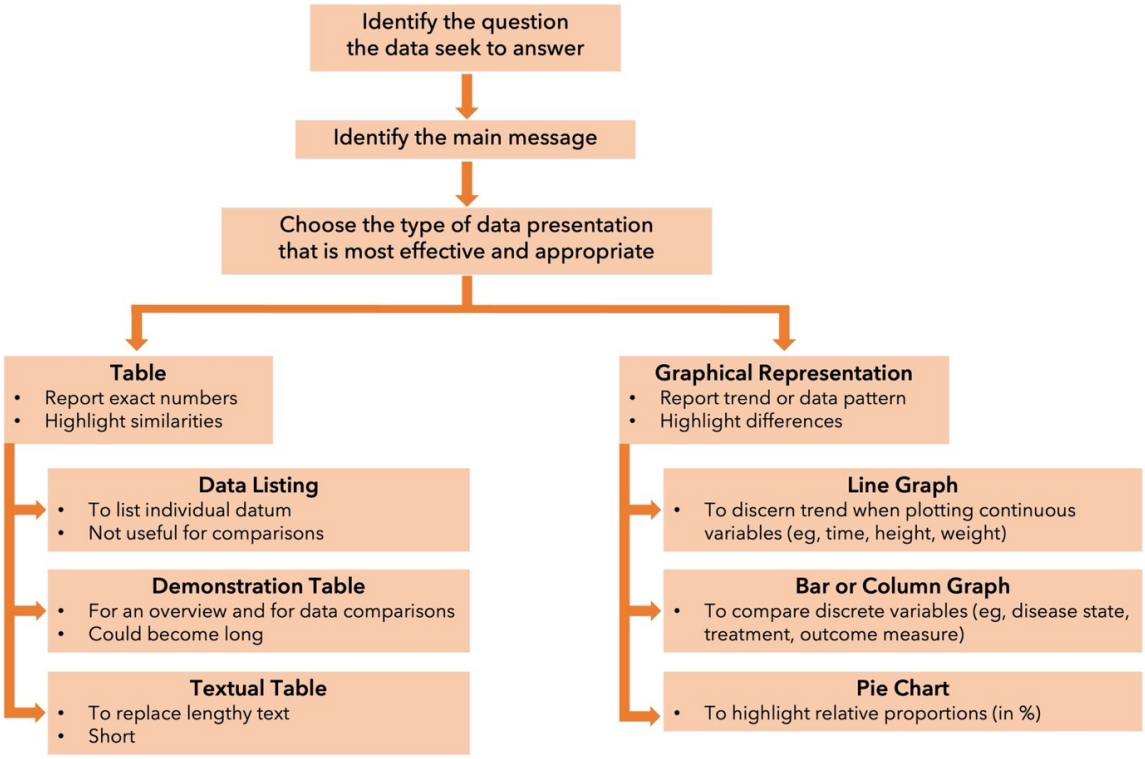

Figure. How to determine the right data presentation type. The purpose and message of the data presentation and the type of data variable will direct our choice.

- Choose a design that makes comparisons easy and keep the key comparators next to each other.
- Ensure column headings accurately describe the data within their respective fields.
- Ensure that the "total" presented at the *bottom* of the column is always the sum.
- Be consistent with text and number alignment. For easier reading, use the top alignment for column headings.
- Keep the table clutter-free. If adjacent data are identical, use a footnote. Use exponents when appropriate.
- Use an unambiguous footnote-labelling system. If the style guide allows it, use the alphabet, as this provides enough options and allows for logical organization. Avoid using a number-based system when data are numerical.
- Double-check for "footnote ghosts." All footnote symbols and abbreviations listed below the table must appear within the table field.
- Avoid empty cells. Blank spaces within a table field can confuse the reader (and the layout editor!).

Design Considerations for Graphical Representations

Dr Drees has the following advice for creating graphical representations:

- Ensure axis labels are clear, accurate, and legible.
- Ensure final figure is large enough for the details to be visible.
- Keep graphs as simple as possible so that differences are easily discernible. "Fancy" or "trendy" design principles (eg, too much "nondata ink") can be misleading.
- For line graphs,
  - Restrict use to continuous variables.
  - Ensure individual lines can be easily followed.
  - Use a trend line to improve clarity.
- For bar or column graphs,
  - Avoid stacked bar graphs, as they make comparing the nonflush variables (ie, those not aligned along the axis) difficult. Instead, use a grouped column graph and, if required, add a column for total.
  - Avoid using different shades of gray or striping to distinguish variables or categories, as these are affected by print quality.
  - Avoid adding numbers to the top of bars. If numbers are essential for clarity, then use a table.
- For pie charts,
  - Restrict use to instances in which percentage points add up to 100%.
  - Restrict use to instances in which the main message can be illustrated with *1 or 2* clear segment(s).
  - Make content user-friendly by starting segmentation at the 12 o'clock position, using appropriate colors or shades, and identifying the segments with a clear key or with labels on or next to segments.
- Avoid including many pie charts, as they are difficult to compare.
- Avoid three-dimensional graphs. These graphs create an optical illusion and can hide data points.

Focus on the Essential

Data presentation is a tool that should be used only when required, and each representation must be integral to the document. Good data presentation will make the accompanying text obvious and easy to write. We must not use data presentation for "data storage" or as means to show off the amount of data collected. We need to balance the quantity of information against the clarity of the message. Our focus should be on the story being told and on the impact of the data presentation.

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