**Worksheet: Creating a data visualization**

This worksheet has been arranged into a series of steps to help guide your data visualization process. However, the data visualization process isn’t always a linear one – the first two steps, *Understand your data* and *Define your purpose* are a bit like a chicken and an egg. Sometimes you start with a purpose then examine the data and other times your data drives your purpose. Complete the steps in whichever order makes the most sense to you.

# STEP 1: Understand your data

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| **Questions** | **Answers** |
| 1. What type of data do you have?

Is it quantitative (mostly numbers) or qualitative (mostly text)? |  |
| 1. What is your data telling you?

What are your key findings? Which data supports your key message? |  |
| 1. Are there any limitations on sharing your data?

What can and can’t you share with different audiences?  |  |
| PROTIP: You’ll likely have a lot of data to sift through. Take your time doing this. Focus on data points that add value to your message or are important for your audience.  |

# STEP 2: Define your purpose

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| **Questions** | **Answers** |
| 1. What are you trying to accomplish with this visualization?

Do you want to share knowledge, generate conversation, inspire action, or something else?  |  |
| 1. What tone are you trying to convey?

Is it reading (e.g. facilitating understanding with a high degree of precision or detail) or feeling (e.g. more emphasis on the *gist* or the *sense* that comes from your visual)? Is it serious or funny?  |  |
| 1. What data will you include in your visual?

Which of your key findings serve your purpose? Be selective. Think about what will be useful and add value.  |  |
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# STEP 3: Define your audience

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| **Questions** | **Answers** |
| 1. Who are you creating this visualization for?

Who is your target audience?  |  |
| 1. How comfortable is your target audience with interpreting data?

Do they have a high or low level of data literacy? This will help you decide how simple or complicated your visual should be.  |  |
| 1. How will they access your visualization?

How will you be sharing your visualization with them (e.g. in-paper, presentation, online, in-print, etc)? |  |
| 1. What does your target population care about?

(e.g. health, money, social justice, liability, etc.)? What questions are important to your target audience? What will they find useful, interesting or inspiring? |  |
| 1. How will you combine your target audience’s interests and the findings from the data to frame your key messages?

Write out your key messages.  |  |
| PROTIP: You might have multiple audiences with varying levels of comfort, experience and knowledge with the topic or data you are presenting. A one-size-fits-all approach to data visualization is limiting. Complete the steps on this list for each of your target audiences.  |

# STEP 4: Begin formulating your idea

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| **Questions** | **Answers** |
| 1. What keywords come to mind when you think about your visual?

Brainstorm keywords that relate to your key messages and data. |  |
| 1. What mental images come to mind?

Brainstorm images that relate to your key messages and data.  |  |
| 1. What inspiration can you draw from elsewhere to help shape your visual?

Look for inspiration from other sources – google is your friend! |  |
| PROTIP: This step is most important when creating an infographic or a PowerPoint Presentation, but might apply less to stand alone charts or whole reports. Take your time brainstorming ideas for your infographic or slides. Put your creative cap on and start visioning – no idea is a bad idea! |

# STEP 5: Develop your visual solution

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| **Questions** | **Answers** |
| 1. Which type of chart/graphic works best for your type of data, purpose, message and audience?

Use the [chart chooser](file:///%5C%5Cwdgphfiles%5Ccollaboration%5Cchild_family_health%5CReproductive%20Health%5CTraining%5CData%20visualization%5CChart%20Hand%20Out.docx) to help you select the right type of visualization. |  |
| 1. What annotations are needed? (e.g. titles, labels, legends, captions, etc.)

Use the [chart design checklist](file:///S%3A%5Cchild_family_health%5CReproductive%20Health%5CTraining%5CData%20visualization%5CChart%20Design%20Checklist.docx) to help you include the proper annotations.  |  |
| 1. What colours are appropriate?

Use the [agency style guide](https://www.wdgpublichealth.ca/?q=staff-comms-brand) for internal projects.  |  |
| 1. How should your visual be transformed to make it as clear and accessible as possible?Use the [chart design checklist](file:///S%3A%5Cchild_family_health%5CReproductive%20Health%5CTraining%5CData%20visualization%5CChart%20Design%20Checklist.docx) to help you simplify your visual as much as possible.
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| 1. How should the layout be arranged?

Use the [chart design checklist](file:///S%3A%5Cchild_family_health%5CReproductive%20Health%5CTraining%5CData%20visualization%5CChart%20Design%20Checklist.docx) to help you think about: placement, size, scale, orientation, etc. It helps to sketch out your visual before creating it in Excel, Word, PowerPoint or Piktochart. Remember, white space and alignment is important. Don’t overcrowd your visual. |  |
| 1. What program should you use to accomplish your ideas? Use the [chart design checklist](file:///S%3A%5Cchild_family_health%5CReproductive%20Health%5CTraining%5CData%20visualization%5CChart%20Design%20Checklist.docx) to help you choose from: Excel, PowerPoint, Piktochart, Wordle, etc.
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| 1. Create it!

Use an agency template, if available and appropriate. Creating visuals, especially infographics, take *time*. Set aside plenty of time to play around with the content and layout of your visual. |  |
| PROTIP: When designing infographics, start with your most powerful piece of data so that your audience is hooked. Order your supporting information so that it has a surprise in the middle, and builds towards a clear conclusion and call-to-action at the end. It’s a good idea to either focus your information on a central image or to arrange your information in rows with two, three, or four columns. |

# STEP 6: Test, modify, and share!

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| **Questions** | **Answers** |
| 1. What feedback do your colleagues have about your visual?

Pay attention to what others pay attention to in your visual, the observations they make, the questions they have, and the ideas they have for better getting your point across. |  |
| 1. What feedback do people in the target audience have about your visual?

Test your visual with your target population, if you have time. Pay attention to the same things that you did with your colleagues.  |  |
| 1. How does your visual need to be changed in order to accommodate the feedback?

Consider feedback and make changes to your visual. |  |
| 1. Share your visual!

Share your visual in a way that is accessible to your target audience.   |  |
| PROTIP: Collect feedback then spend some time away from your visual so that you can look at it with fresh eyes. Ask yourself: Is the main message clear? Are the charts effective and easy to understand? Is it on brand? Is it visually appealing?  |