

Creating Visual Abstracts

Step 1: Select a software program

Microsoft Powerpoint is the easiest program for most people to use; however, other options exist too. Some of the other programs have a free version but require a paid license in order to download and/or publish graphics after they are created.

Program	Description	Website	Cost
InkScape	Free to download and allows you to draw/create graphics and text.	https://inkscape.org/	Free
Canva	A tool for making infographics that includes pre-made graphics.	https://www.canva.com/	Free/\$
Mind the Graph	A tool of making infographics that contains pre-made graphics, including medical illustrations.	https://mindthegraph.com/	Free/\$
BioRender	A tool of making infographics that contains pre-made graphics, including medical illustrations.	https://biorender.com/	\$\$
Adobe Illustrator	More advanced graphic design software.	https://www.adobe.com/products/illustrator.html	\$\$

Step 2: Determine content to include

When trying to decide what content to include in a visual abstract, use the written abstract as a starting point. The visual abstract is a summary of the key points from a written abstract. The key content to include may differ slightly for each article; however, here is some common content to include:

ANATOMY OF A VISUAL ABSTRACT

Research question/objective:

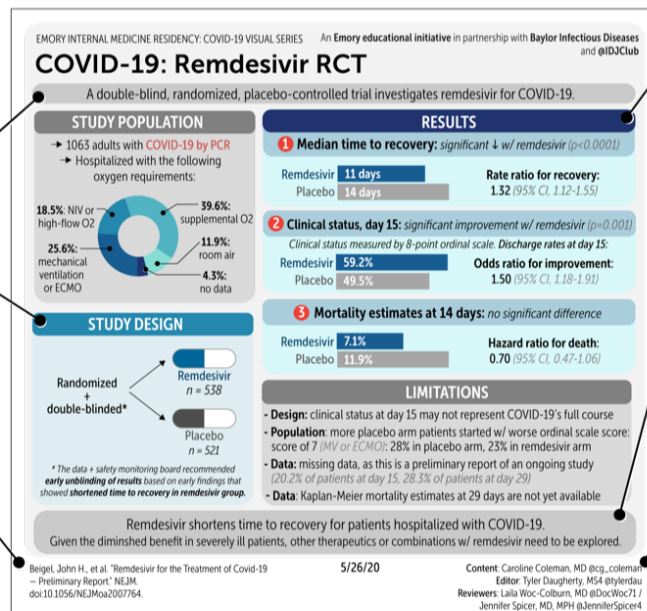
This is often used as the title or subtitle of the visual abstract.

Methods:

Include methods important for understanding the context of the results. At the very least, mention the study design.

Citation:

A citation to the article should be on the bottom of the abstract.



Results:

Highlight the primary outcome from the study. Avoid the temptation to highlight just the "interesting" finding if it's not the main outcome.

Conclusion:

This is optional; however, some people like to include the "take home" message.

Visual abstract author:

The visual abstract author/creator should be listed along with any copyright information.

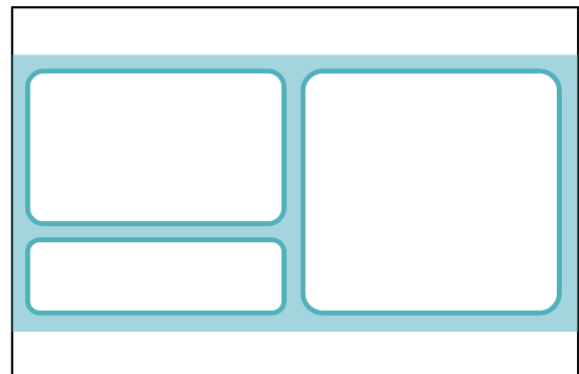
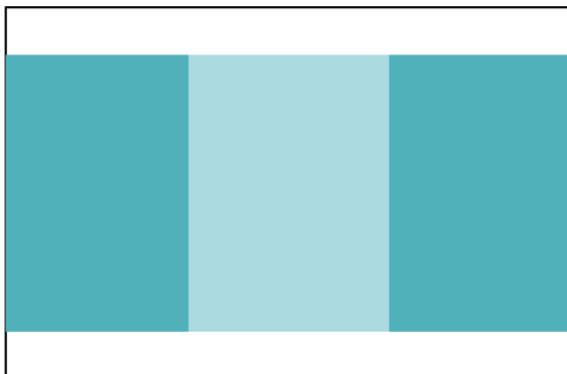
Step 3: Incorporate graphics and minimize words

Consider how to translate text into graphics. Minimizing words makes it easier for viewers to digest the material quickly. Before including graphics, make sure that their copyright license allows for them to be included and distributed in visual abstracts. The easiest ways to avoid copyright issues are to: 1) create your own graphics in Powerpoint using shapes (see tutorial in the references), 2) use icons include in Powerpoint if you have Microsoft 365, 3) find graphics in the public domain from the internet. Other potential sources of images are below.

Website	Description	Web address
NounProject	Black icons available for download, most of which have a creative commons license. Can be re-colored in powerpoint.	https://thenounproject.com/
FlatIcon	Multicolored icons available for download. Some cost money and some have a creative commons license.	https://www.flaticon.com/
Servier Medical Art	Medical illustrations available for download with a creative commons license.	https://smart.servier.com/
BioRender	More complex medical illustrations allowing creation of your own figures. Requires paid subscription.	https://biorender.com/

Step 4: Develop an organized layout

Break up your available space using boxes and/or shapes (examples below). Align content within boxes, and leave “negative” or “white” space to avoid crowding your content.



Step 5: Create a color palette

Create a color palette using principles from the color wheel.

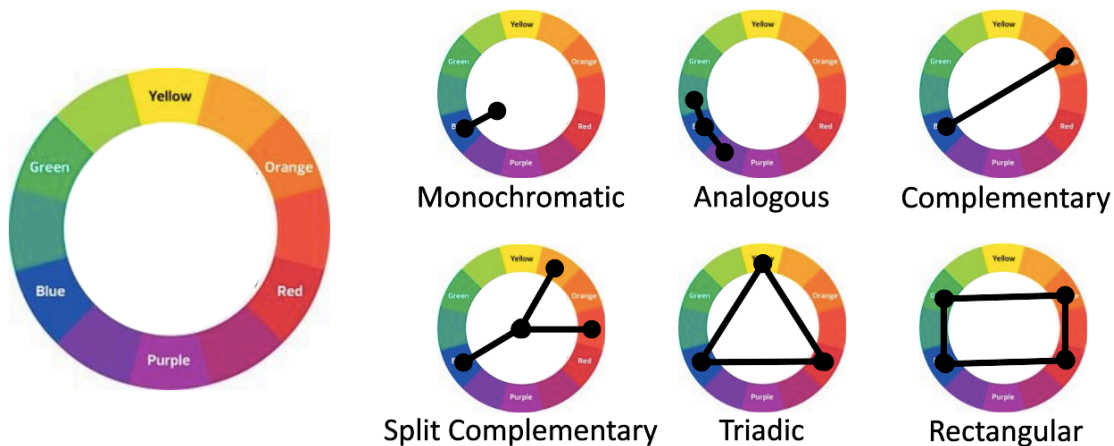
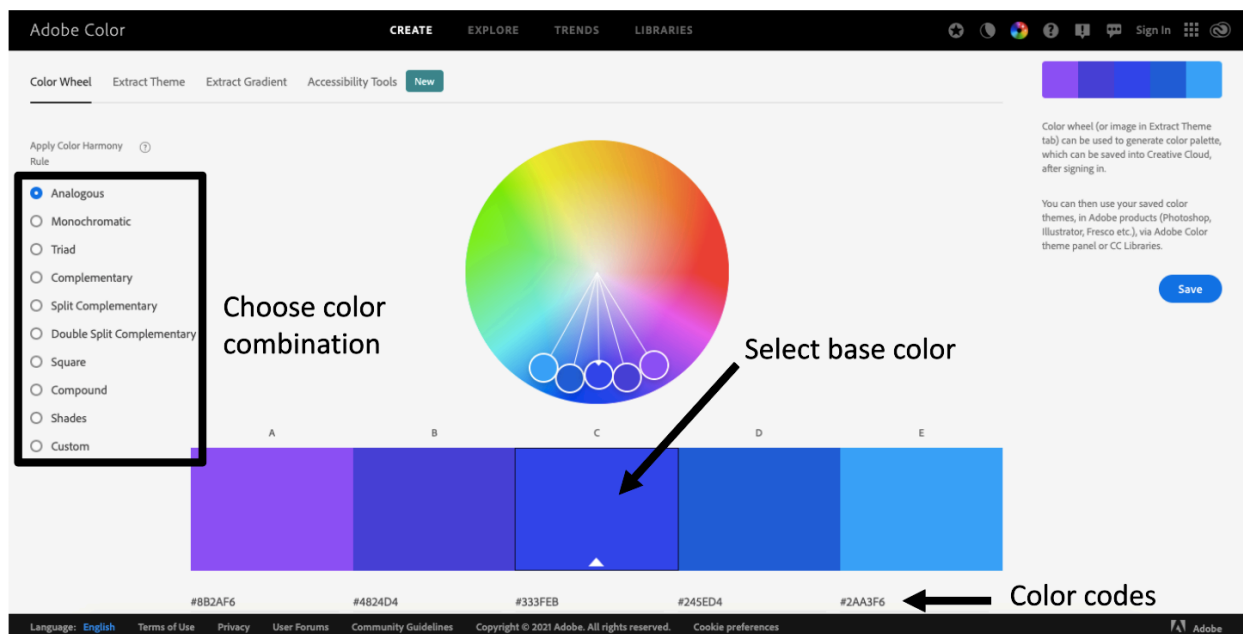


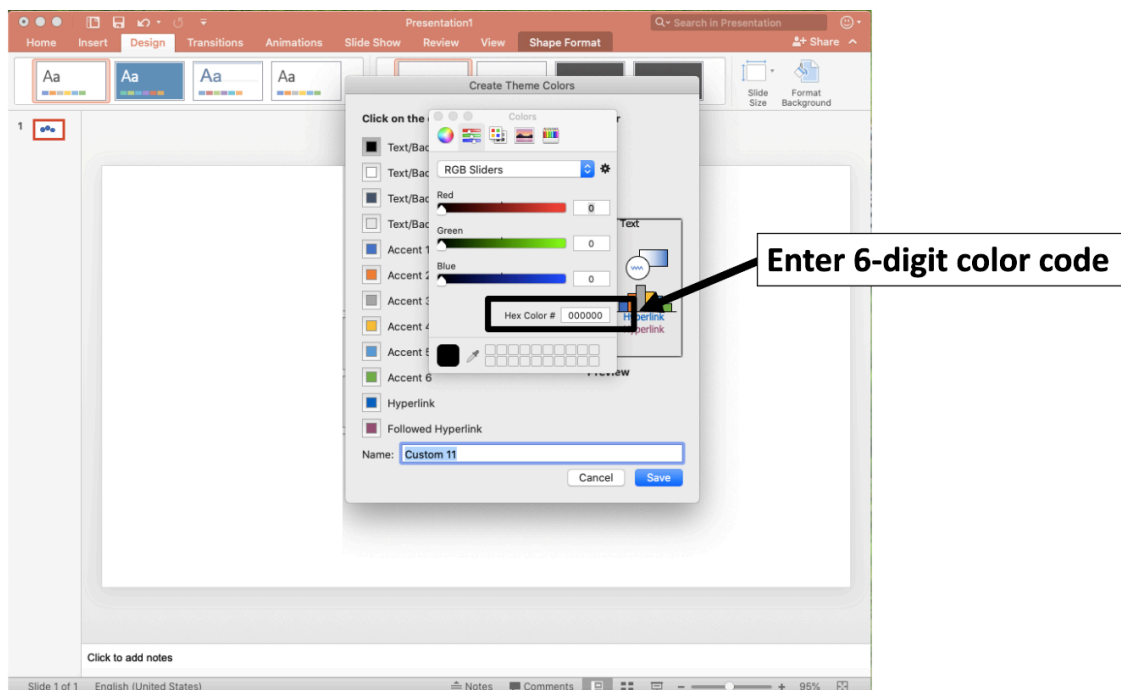
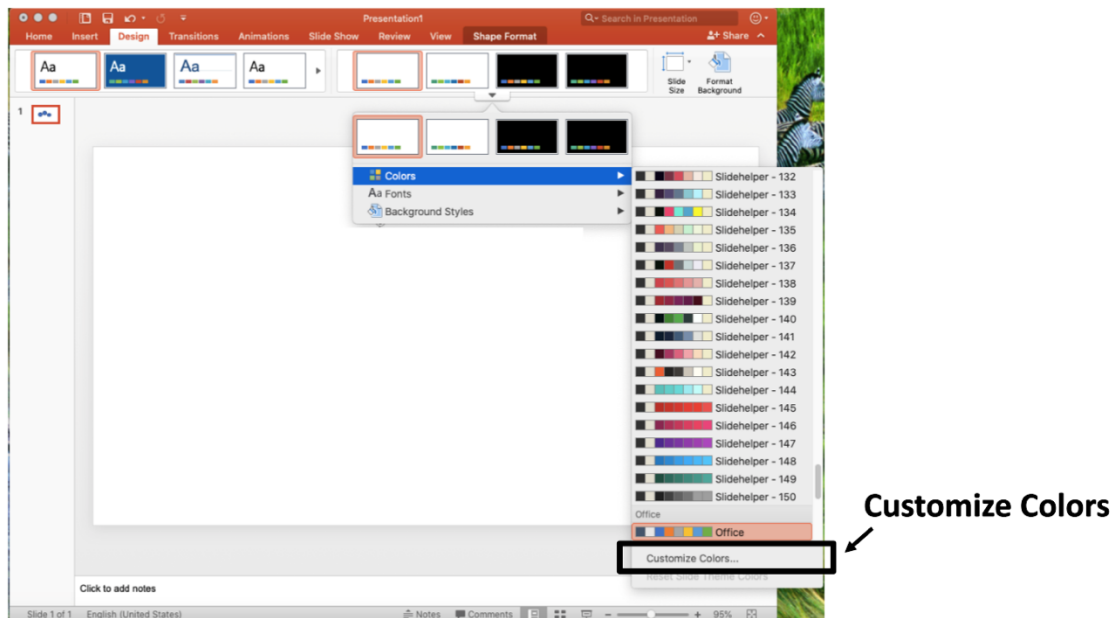
Image adapted from: "Color Wheel" by Linda, Fortuna future is licensed under CC BY-NC 2.0. Link to original image: <https://www.flickr.com/photos/53470892@N08/39277024125>

A program, like Adobe color wheel (website: <https://color.adobe.com/create/color-wheel>) allows you to create your own color palette.



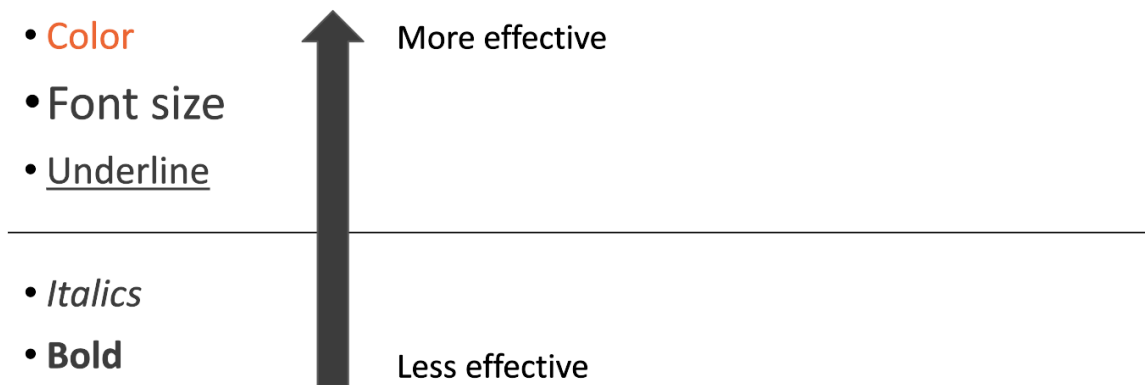
Website: <https://color.adobe.com/create/color-wheel>

The 6-digit color codes can then be entered into powerpoint to create a customized color template.



Step 6: Emphasize key content

Emphasize key content in your visual abstract by using color, size, underlining, & arrows. When using colors, try to use approximately 60% of a base color, 30% of a secondary color, and 10% of an accent color.



Additional Resources

See this pdf primer by Andrew Ibrahim that includes information about creating visual abstracts along with a link to a GoogleSheet that contains an up-to-date list of journals using visual abstracts. Looking at other visual abstracts is often the easiest way to get ideas about how to present your data visually:

- Ibrahim AM. Use of a Visual Abstract to Disseminate Scientific Research, Version 4. January 2018. Available at:
https://static1.squarespace.com/static/5854aaa044024321a353bb0d/t/5a527aa89140b76bbfb2028a/1515354827682/VisualAbstract+Primer_v4_1.pdf

The following videos are helpful demonstrations showing how to create visual abstracts that you may find helpful:

- **Dr. Caroline Coleman's short demonstration:**
 - Caroline Coleman. (2021, April 1). How to Create a Visual Abstract [Video]. YouTube. <https://www.youtube.com/watch?v=XNmCc2FehqE>
- **Short demo:**
 - StudioAMI. (2017, October 21). #VisualAbstract Demo [Video]. YouTube. <https://www.youtube.com/watch?v=U2RvJORXegE>
- **10-minute presentation on visual abstracts:**
 - Society of American Gastrointestinal and Endoscopic Surgeons. (2018, February 10). How to Make a Visual Abstract from Andrew Ibrahim MD [Video]. YouTube. <https://www.youtube.com/watch?v=CzSvC6ZtS1I>
- **30- minute presentation focused on visual design principles:**
 - Sara Hocevar. (2021, February 2). Graphical Abstract Part 1 [Video]. YouTube. <https://www.youtube.com/watch?v=SjccbeMBhMQ>
- **1-hour presentation focusing on visual design principles (from BioRender):**
 - BioRender. (2020, June 11). BioRender Graphical Abstract Webinar (May 28, 2020) [Video]. YouTube. <https://www.youtube.com/watch?v=35x2nPMzWbE>
- **Short tutorial demonstrating how you can create your own graphics in powerpoint:**
 - Haider Niaz. (2020, July 20). How to make an attractive graphical abstract in powerpoint, tutorial [Video]. YouTube. https://www.youtube.com/watch?v=hC_Qrau6HD8
- **Short tutorial demonstrating how to create graphics in "Mind the Graph" (although not truly demonstrating a visual abstract):**
 - Mind the Graph. (2018, June 22). Mind the Graph – How it Works: creating a graphical abstract [Video]. YouTube. <https://www.youtube.com/watch?v=AK7bH7Yq2gl>

To search for examples of visual abstracts, you can type in the following in the search bar on Twitter: #visualabstract, #graphicalabstract, #EducationintheTimeofCOVID (for all of our COVID-19 Visual Series visual abstracts).