



PUBLIC HEALTH INFRASTRUCTURE GRANT

TTA Accessibility Guide by NNPHI

Image Description: A Deaf Black man smiles and looks at something in the distance while signing. The man has glasses, a beard, and septum piercing, and stands outdoors in front of a black wall with sun-kissed foliage while wearing a peach shirt, smartwatch, beaded bracelet, and hair tied back with a bandana.

Photo and Image Description by [Disabled and Here.](#)

This Accessibility Guide was created by the National Network of Public Health Institutes (NNPHI) to make the delivery of training and technical assistance through the OE22-2203: Strengthening U.S. Public Health Infrastructure, Workforce, and Data Systems Grant, commonly referred to as the Public Health Infrastructure Grant (PHIG), more inclusive.

PHIG is a five-year investment providing funding for workforce development, foundational capabilities, and data modernization. This funding aids state, local, and territorial jurisdictions in being able to better address the multifaceted needs of the communities and populations they serve.

Training and Technical Assistance (TTA) partners are pivotal in advancing this public health initiative by offering specialized expertise, resources, and support. Whether in the realms of workforce development or the implementation of new technologies, amongst other topic areas, TTA partners bring a wealth of knowledge and experience to the table. Given the broad impact of the work completed by TTA partners, it is essential that accessibility is considered throughout the TTA response process.

Using a health equity lens while carrying out the work of this national initiative includes institutionalizing accessibility into all the technical assistance provided. Accessibility, according to the National Center on Deaf-Blindness (2022), necessitates that our technical assistance audience is able to “perceive, understand, navigate, and interact with electronic information and be active, contributing members of the digital world.” Though much of this guide focuses on incorporating accessibility for virtual deliverables, much of it is also applicable to in-person meetings.

This guide includes best practices for incorporating accessibility in the design of everyday tasks that technical assistance partners lead. Accessibility in the following areas is considered:

- I. Accessibility for Virtual Meetings
- II. Accessibility for Presentations
- III. Accessibility for Written Materials

This document will be updated frequently. If you would like to contribute ideas or materials to the next edition of the guide, please get in touch with Loren at lmilliken@nnphi.org.

Accessibility Checklist

Accessibility for Virtual Meeting

- Ask about Accessibility request during Registration
- Enable Closed Captioning as Standard Practice
- Note the Accessibility Features of the Platform
- Send Copy of Audio Transcript and Recording

Accessibility for Presentations

- Use Legible Fonts (Sans-Serif Type)
- Use Appropriate Color Contrast
- Use 24 size Font and greater
- Limit Text
- Use Consistent Formatting
- Incorporate White Space
- Use Image Descriptions, ATL Text, and Captions

Accessibility for Written Materials

- Formatting to Enhance Readability (as needed from above)
- Use Plain Language
- Use Titles and Headers
- Check for Accessibility using Built-In Checks

I. Accessibility for Virtual Meetings

Virtual meetings have become an integral part of modern communication, revolutionizing the way organizations connect. Ensuring virtual meeting accessibility is paramount to promoting inclusivity and accommodating a diverse range of participants.

Registration

Accessibility in registration is essential for promoting inclusivity, fulfilling ethical responsibilities, expanding reach, and improving user experience. Here are some registration considerations:

- **Provide Contact Information:** Include contact information for individuals who may need assistance with the registration process. This could include a phone number or email address for questions or support.
- **Accessibility Information:** Provide information about the accessibility of the event. For instance, that captions will be available or that the recording and transcript will be sent out to all registrations regardless of attendance.
- **Accommodation Questions:** Help organizers understand and address the diverse accessibility needs of their participants, ensuring that everyone can fully engage in the experience. Two examples are provided below:
 - Do you require any accommodation(s) to participate in this event? If so, please specify:
 - This open-ended question allows participants to communicate any specific accessibility needs they may have.
 - Is there anything else you would like us to know to ensure your full participation and enjoyment of this event?
 - This open-ended question provides participants with an opportunity to communicate any additional accessibility needs or concerns that may not have been addressed by the previous question.

Accessibility in Meeting Platforms

Virtual meetings should be designed with features that cater to individuals with varying abilities, such as those who are deaf or hard of hearing, visual processors, and Language Learners. This commonly includes providing closed captioning (CC) options during a meeting and a copy of the audio transcript after. The following section focuses on captions and audio transcript features of Zoom and Teams, as NNPHI and TTA Partners use these platforms most widely.

Accessibility in Zoom

Closed Captioning

Zoom offers closed captioning for meetings through automatic speech recognition technology (Zoom refers to this as “live transcription”).

Though CC is available on all Zoom subscription levels, the account owner or a user with administrative privileges must make captions available within their Zoom settings. The host will need to have the 5.9.0 version or higher. Below are the instructions from the Zoom Manual on how to enable CC (including how to access transcripts).

To enable automated captions for meetings and webinars:

For Host (admin view may be different)

1. Sign into the Zoom web portal.
2. In the navigation menu, click **Settings**.
3. Click the **Meeting** tab in upper bar.
4. Under **In Meeting (Advanced)**, click the **Automated captions** toggle to enable or disable it.

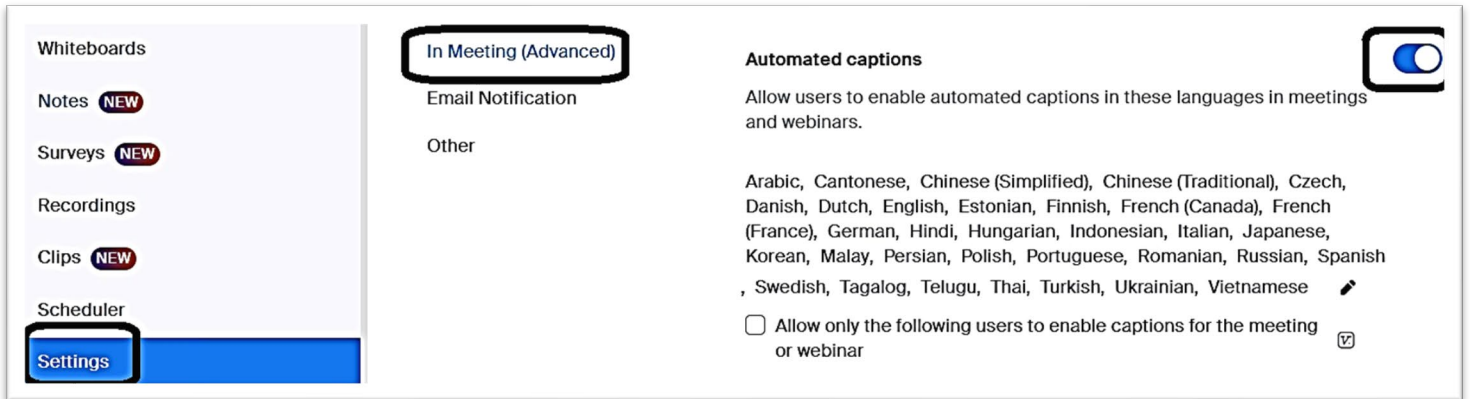


Figure 1 Screenshot of directions for enabling captions.

Once enabled, there will be a large CC on the toolbar for hosts and attendees to click during the meeting. The captions will display on the viewer's screen (which can be moved around to prevent captions blocking their view) in a thumbnail.

Another option for captions is to allow the captions to be viewed in a side panel. This also has to be enabled within the host's settings before an attendee can utilize.

To Enable Transcripts in a side-panel

4. Under **In Meeting (Advanced)**, click the **Full transcript** toggle to enable or disable it.

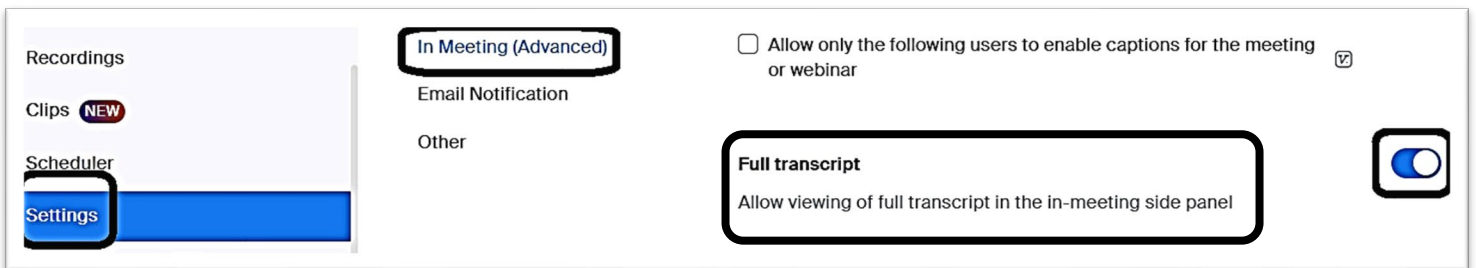


Figure 2 Screenshot of directions for enabling panel view of transcript

To note, live transcription is not available in breakout rooms. The host can give someone permission to type closed captions so that they show up on the screen for those with CC activated. Below is a screenshot of how to enable manual captions.

To Enable Manual Captions (Live Captions unavailable in breakout rooms)

- Under **In Meeting (Advanced)**, click the **Manual captions** toggle to enable or disable it.

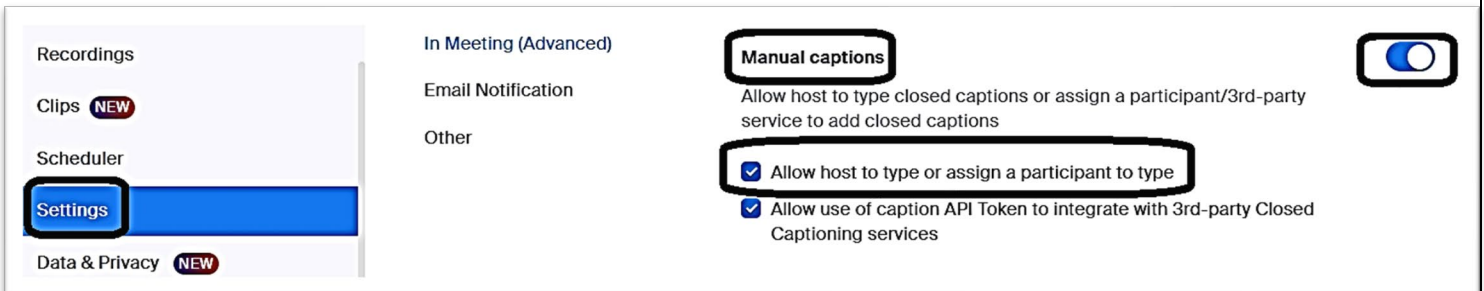


Figure 3 Screenshot of directions for enabling manual captions

Saving Transcripts generated by Live Transcription

CC can be saved by the participant **if enabled under settings by the host account.**

To Enable the ability to Save Captions

- Under **In Meeting (Advanced)**, click the **Save captions** toggle to enable or disable it.



Figure 4 Screenshot of directions for enabling participant to save captions transcript

The captions transcript can be saved by the hosts of the participant by following slightly different directions. See this [Zoom Support](#) page for more information on “How to save captions”.

Audio Transcripts

Closed Captions Transcripts vs Audio Transcripts

The previous section focused on **closed captions**, which is a synchronized text version of the spoken words and other relevant sounds *in a video*. The text appears on the screen *in real-time*, corresponding to the timing of the spoken words. Issues with synchronization can affect the overall quality and accuracy of captions as a downloadable transcript.

In contrast, **Audio Transcripts** aim to transcribe *every spoken* word in an *audio file*. Since audio transcripts are not dependent on what is picked up during the call, they tend to be more complete and easier to follow. They read in a linear manner and have names associated with text.

Sharing a copy of the audio file transcript, one that is ideally edited for accuracy, along with the recording is a good way to ensure accessibility is incorporated in meeting follow-up.

For those with a Pro, Business, Education, or Enterprise license, audio transcription is available and tips on how to utilize audio transcripts are presented below.

When Audio transcription is enabled, Zoom automatically transcribes the audio of an entire meeting or webinar that you record to the cloud (not locally on your computer). After this transcript is processed, it appears as a separate VTT file in the list of recorded meetings.

An account holder can edit the text to capture the words more accurately, or to add capitalization and punctuation, which are not captured by the transcript. Learn more about [using audio transcription using this link to Zoom Support](#).

To enable the generation of transcripts from a cloud recording

1. Click **Settings**
2. Click **Recordings** in the upper bar
3. Scroll down to **Advanced cloud recording settings**
4. Click **Create audio transcript and save CC as a VTT file**

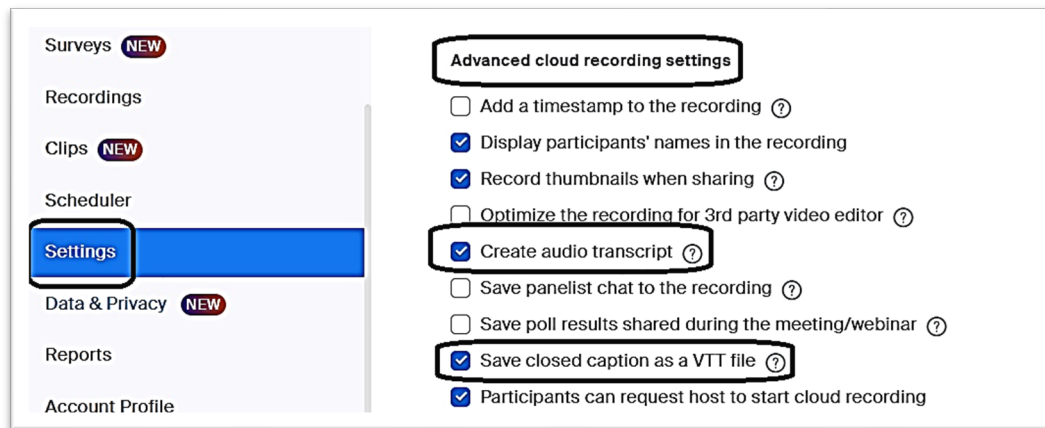


Figure 5 Screenshot of directions for enabling transcripts to be automatically generated from a cloud recording

A copy of the recording, the audio transcript, and the CC transcript will be available in the recordings tab shortly after the Zoom call is complete. To note, the recording button must be clicked during the meeting, unless set to automatically record.

How to enable Translation into another language

Translated captions are possible for higher levels of Zoom (Zoom One Business Plus, Zoom One Enterprise Plus accounts, or accounts with the Zoom Translated Captions add-on.)

Zoom translated captions enable users to have the speech in a meeting or webinar automatically **translated in real-time to captions in another language**. For example, if a meeting participant is speaking in English, other participants can view captions in Spanish.

Available caption languages are determined by the host in web settings before the live session, but participants can self-enable captions and switch languages without the need of the host. To learn more about translated captions, review [this Zoom Support page](#).

Accessibility in Teams

Closed Captioning

As in Zoom, Teams meetings users can access real-time captions. This functionality ensures that participants can follow the conversation more effectively, enhancing their understanding and engagement. Unlike in Zoom, **enabling automated captions** is not dependent on administrative permissions and is available automatically.

In Teams, enable live captioning can be done by the user by following these steps:

- Click the **three dots** in the tools menu
- Scroll down to “ **Language and speech**”
- Click “**Turn on live captions**” or “**Turn off live captions**” depending on need

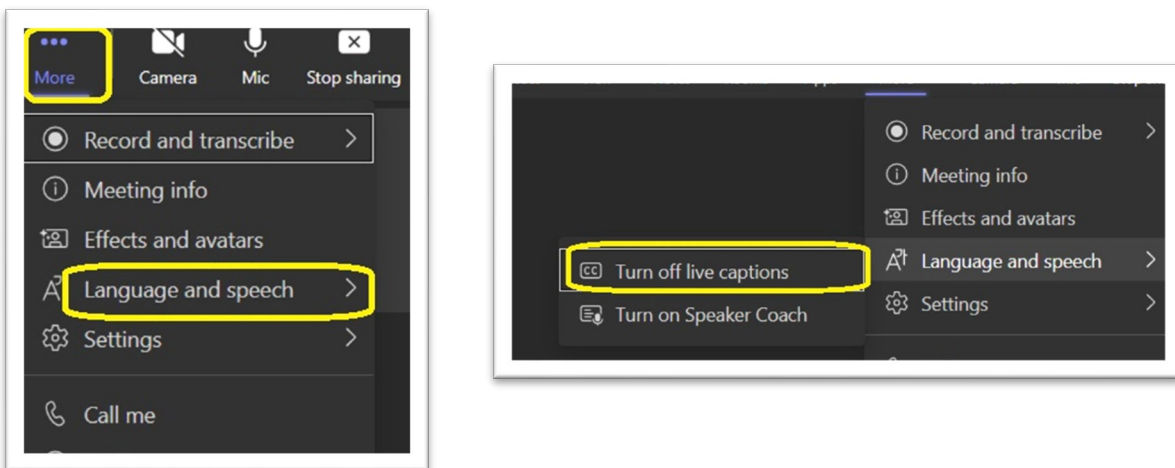


Figure 6 Screenshots of directions for starting CC in a Teams Meeting

To note, captions are not saved in Teams, like they are in Zoom. However, a transcript of the meeting is available after the meeting if transcription feature is turned on during the meeting.

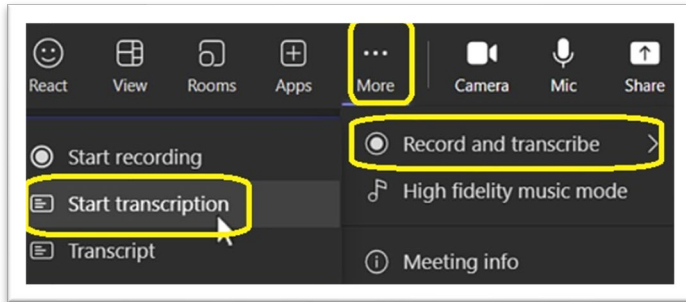


Figure 7 Screenshot of directions to start transcription in Team

The transcript can be downloaded after the meeting is completed in the Meetings chat message.

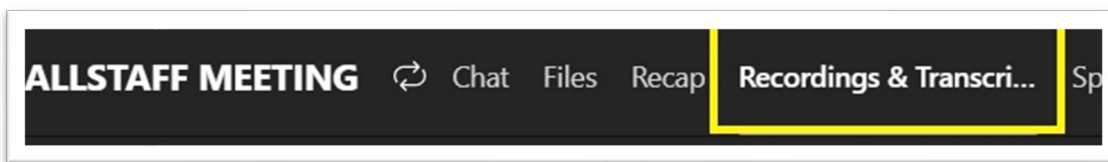


Figure 8 Screenshot of location of transcripts download after turned on during Teams meeting

Get the most out of your captions and transcripts

- At the beginning of the meeting, note the accessibility features provided
 - For example, if using a Teams meeting, announce “CC is available for those who would like to use it. Please go to the tool bar and click the Menu Botton with 3 dots above it, click Language and Speech, and finally Turn on Live Captions to view. A copy of the transcript, along with recording will be sent out later this week.”
- Speak clearly, slowly, and directly into the mic.
- Test out accessibility features with internal team prior to meetings
- As your distance from the mic increases, captions may become less accurate.
 - Both Zoom and TEAMS have about an 80% accuracy rate.
- Avoid locations with background noise.
- Avoid having multiple people speak at the same time.

II. Accessibility for Presentations

Ensuring accessibility in presentations is essential for creating an inclusive environment where diverse audiences can fully engage with the content. Presenters should prioritize features such as clear and legible **fonts**, appropriate **color contrasts**, and consistent **formatting** to enhance readability for individuals with visual impairments or color blindness.

Fonts

Fonts play a crucial role in enhancing accessibility by ensuring that information is easily readable for individuals with varying visual abilities. When designing content for digital platforms or print, choosing the right font type, size, and spacing can significantly impact how easily users can consume information.

[Sans-serif fonts](#) are often preferred for their simplicity and clean lines, improving readability, especially for individuals with visual impairments.

Popular Sans-serif fonts include Arial, Helvetica, Proxima Nova, Futura, and Calibri. Some other popular fonts include Times New Roman, Garamond, Baskerville, Georgia, and Courier New.

Color Contrast

Color contrast is a fundamental aspect of designing for accessibility, ensuring that information is easily distinguishable for individuals with visual impairments or color blindness. Adequate color contrast involves the juxtaposition of text and background colors to facilitate readability. The Web Content Accessibility Guidelines (WCAG) provide specific criteria for color contrast ratios, aiming to make content perceivable by a broader audience.

WCAG requires a color contrast ration of at least 4.5:1 for normal text and 3:1 for Large text.

Examples:

[Light Blue \(#629DD1\) Over White](#)

Fails due to 2:69: 1 Contrast Ratio

[Bright Blue \(#545AFC\) Over Yellow \(#FFFF00\)](#) and [Bright Blue Over White](#)

Passes due to 4:6: 1 Ratio and 4:94, respectively. However, neither of the above are particularly easy to read, despite passing the contrast ratio test. This is because the color contrast ratio standards are a *baseline* and prudent judgement should still be used in determining readability.

Testing For Color Contrasts

How to use a contrast checker

Web Accessibility in Mind (WebAIM) has a very helpful [contrast checker](#), in which the designer enters a foreground and background color in RGB hexadecimal format (e.g., #FD3 or #F7DA39) or chooses a color using the color picker.

To find the hexadecimal code for a color in Word click the **text color** carrot, click **“More Colors”**, click **“Custom”** and find the **Hex** below. There is also the option to turn off low contrast colors (see arrow).

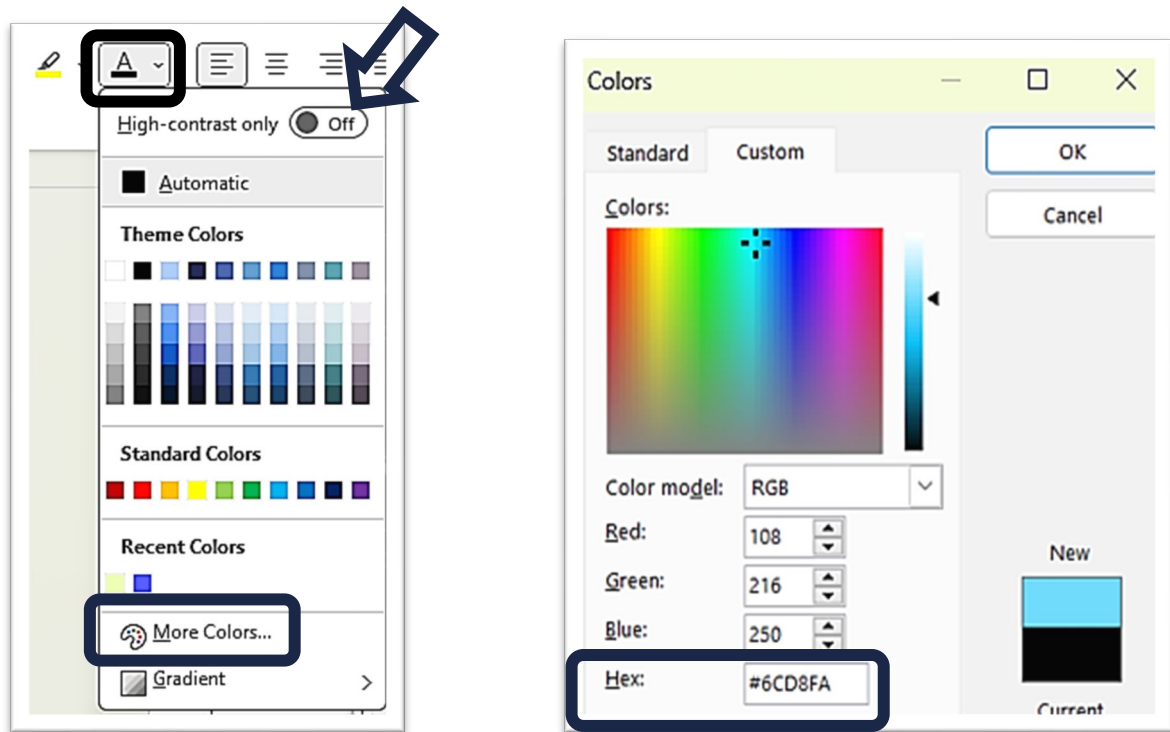


Figure 9 Screenshot of directions how to find hex codes in Word

Formatting to Enhance Readability

Readable presentations capture and maintain the audience's attention. When content is easy to read and understand, audience members are more likely to stay engaged and focused throughout the presentation. Readable presentations facilitate clear communication of ideas and information. When text is legible and visually organized, it minimizes the risk of misinterpretation or confusion among audience members. Here are some tips for enhancing readability:

- **Use Clear Fonts:** Selecting clear, sans-serif fonts like Arial, Calibri, or Helvetica ensures that the text is easily readable, even from a distance. Use the same font throughout the text.
- **Appropriate Font Size:** The font size should be large enough to be readable from the back of the room. For body text, a font size of at least 24 points is recommended, while headings should be around 36 points or larger for emphasis and clarity.
- **Contrast:** High contrast between text and background colors enhances readability. Dark text on a light background or vice versa provides optimal contrast.
- **Limited Text:** Each slide should contain only the *essential* information to avoid overwhelming the audience. Use bullet points, short phrases, or keywords instead of full sentences or paragraphs.
- **Consistent Formatting:** Maintain consistency in font styles, sizes, and colors throughout the presentation. Consistent formatting creates a cohesive visual experience and helps guide the audience's attention to important information.

- **Whitespace:** Whitespace, or empty space around text and graphics, improves readability by preventing overcrowding /Use ample whitespace between elements to create a clean and uncluttered layout.

Image Descriptions

An image description is an umbrella term for a textual description of an image and serves as a replacement for the visual content of the image. There are three primary types: **image caption**, **image description**, and **ALT text**. All have similar purposes, but different uses.

An **image caption** typically provides a brief explanation or title for an image. It is often used to provide context or highlight key elements of the image. On the other hand, an **image description** is a more detailed description of an image.

[ALT Text](#) refers to *invisible description* of images which are read aloud by screen readers. Adding ALT text allows authors to include images, but still provides the content in an alternative text-based format for those unable to view it.

Considerations for Captions and ALT Text:

1. **Be descriptive:** Provide a concise but detailed description of the image, including important visual elements, context, and any text within the image.
2. **Keep it relevant:** Focus on conveying the essential information or message of the image without including unnecessary details.
3. **Be accurate:** Ensure that the description accurately represents the content and meaning of the image.
4. **Keep it concise:** Aim for a description that is succinct but informative, typically no longer than a sentence or two.
5. **Avoid subjective language:** Stick to objective language and avoid subjective interpretations or assumptions about the image.

Additional Considerations for Image Descriptions

6. **Consider Emotions and Atmosphere:** If relevant, describe the emotions or atmosphere conveyed by the image, such as happy people, serene landscape, or busy city street.
7. **Use Personal Identifiers for when needed:** Identity and representation should always be treated with respect and care. If the race, gender, ethnicity, sexual orientation, age, or another identifier for a person is relevant to the overall context of a visual, feel free to add it to your image description.

Accessibility for Written Material

Accessibility in written documents promotes inclusivity by removing barriers that may prevent individuals from understanding or engaging with the content. Clear and well-structured documents benefit everyone, facilitating easier navigation and understanding of complex topics. By using plain language and descriptive headings, writers can ensure that their message is effectively communicated to a diverse audience.

Plain Language

Using **plain language** is crucial for effective communication, particularly when trying to reach a diverse audience or when dealing with complex topics. Here are some best practices for using plain language:

- **Know Your Audience:** Understand who you are communicating with and tailor your language to their level of understanding, background knowledge, and needs.
- **Use Simple Words:** Choose words that are commonly understood by your audience. Avoid jargon, technical terms, or complex vocabulary unless necessary and explained.
- **Keep Sentences Short and Direct:** Aim for clarity by using short sentences and avoiding unnecessary complexity. Break down complex ideas into smaller, more digestible chunks.
- **Organize Information Clearly:** Structure your content logically with headings, bullet points, or numbered lists to help readers navigate through the information easily.
- **Define Terms:** If you must use technical terms or specialized vocabulary, provide definitions or explanations to ensure comprehension.
- **Use [Active Voice](#):** Write in the active voice to make your sentences clearer and more engaging. Passive voice constructions can be confusing and less direct.
- **Test for Comprehension:** Review your writing to ensure that it is understandable to your target audience. Consider seeking feedback from individuals who represent your intended readership.
- **Prioritize [Plain Language](#) in Design:** Incorporate plain language principles into the design of documents, websites, and other communication materials to enhance accessibility and usability.

Using Headings

Headings play a crucial role in enhancing accessibility in written documents by providing structure, organization, and navigational aids for readers. Here's how the use of headings contributes to accessibility:

- **Navigational Aid:** Headings serve as signposts that guide readers through the document's content. Individuals who use screen readers or other assistive technologies rely on headings to navigate efficiently, allowing them to skip to relevant sections or locate specific information quickly.
- **Clarity and Comprehension:** Well-defined headings help break down the document into manageable sections, making the content easier to understand and digest. Clear headings facilitate comprehension by signaling the beginning of new topics or ideas.
- **Organization and Structure:** Headings contribute to the overall organization and structure of the document, allowing readers to grasp its main themes and subtopics at a glance. This hierarchical structure provides context and coherence, enabling readers to follow the logical flow of information more easily.
- **Screen Reader Compatibility:** Screen readers use headings to generate outlines or navigation menus for users, allowing them to jump between sections or levels of content. Properly

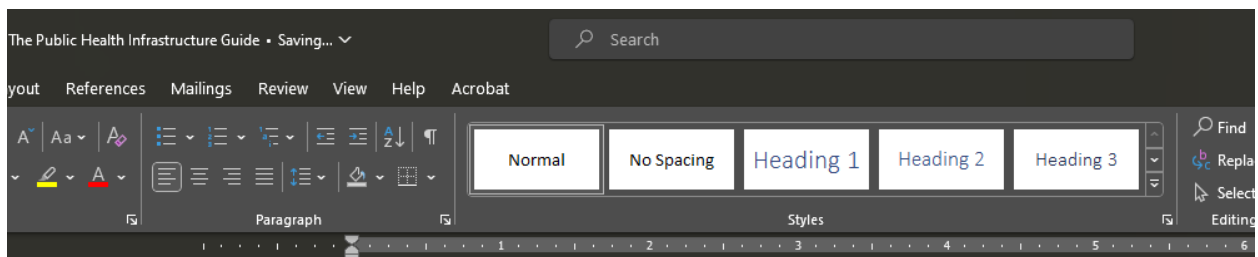
formatted headings with descriptive labels enable screen reader users to navigate through the document efficiently, ensuring a smoother reading experience.

Using Headings in Word

Title, **Subtitle**, and **headings** are meant to be scanned, both visually and with assistive technology.

Ideally, headings explain what a document section is about. Use the built-in heading styles and create descriptive heading texts to make it easier for screen reader users to determine the structure of the document and navigate the headings.

Organize headings in the prescribed logical order and do not skip heading levels. For example, use **Heading 1**, **Heading 2**, and then **Heading 3**, rather than **Heading 3**, **Heading 1**, and then **Heading 2**. Organize the information in your document into small chunks. Ideally, each heading would include only a few paragraphs. See Word's toolbar to find headings.



For a step-by-step instructions on how to use the headings and styles, go [to Improve accessibility with heading styles](#).

Checking For Accessibility in Word Document

To check for accessibility in a Word document, you can use the built-in accessibility checker. Here's how to do it:

1. Open your Word document.
2. Click on the "**Review**" tab in the ribbon at the top of the Word window.
3. Click on "**Check Accessibility**."

Word will then scan your document for potential accessibility issues and display them in the Accessibility Checker pane on the right-hand side of the screen. This pane will list any accessibility errors, warnings, or tips it finds, along with suggestions for how to fix them.

Common accessibility issues that the Accessibility Checker might identify include missing alt text for images, improper use of headings, color contrast issues, unclear hyperlink text, and more.