PowerPoint Presentations to Support Health Literacy and Accessibility

Health Literacy Month Webinar Series

MULTI-REGIONAL CLINICAL TRIALS
THE MRCT CENTER OF BRIGHAM AND WOMEN'S HOSPITAL and HARVARD

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DEVELOP
STANDARDS

ESTABLISH
BEST PRACTICES

MULTI-REGIONAL
CLINICAL TRIALS

THE MRCT CENTER OF
BRIGHAM AND WOMEN'S HOSPITAL
and HARVARD

IDENTIFY OPPORTUNITIES
FOR IMPROVEMENT

IMPROVE
TRANSPARENCY

About Us

The MRCT Center is an applied policy center focused on addressing the conduct, oversight, ethics and regulatory environment for clinical trials around the world.

Health Literacy Month Webinar Series
October 2024

October 10, 2024
12-1 PM ET

How to Design Impactful **Informed Consent** Processes that Empower Participants

October 17, 2024
12-1 PM ET

How to Create and Disseminate **Plain Language Summaries**: One Patient Advocacy Group's Experience

October 22, 2024
12-1 PM ET

Designing **PowerPoint Presentations** to Support Health Literacy and Accessibility

The REACH Project

The REACH Project aims to curate, align, and disseminate tools to advance access to and inclusion in clinical research—for all potential participants--tailored for Institutional Review Boards (IRBs), Human Research Protection Programs (HRPPs), and the broader community.

The REACH Webinar Series

- March 7, 2024: REACH: Advancing DEI in Human Participant Research. Available at: https://mrctcenter.org/resource/reach-advancing-dei-in-human-participant-research/

- July 9, 2024: Accessibility 101: How to Write Alt-Text and Map Participant Journeys. Available at: https://mrctcenter.org/?sfid=229&_sf_s=accessibility%20101

- October 22, 2024: Implementing Health Literacy Training in HRPPS and IRBs

Join us at the MRCT Center Annual Symposium
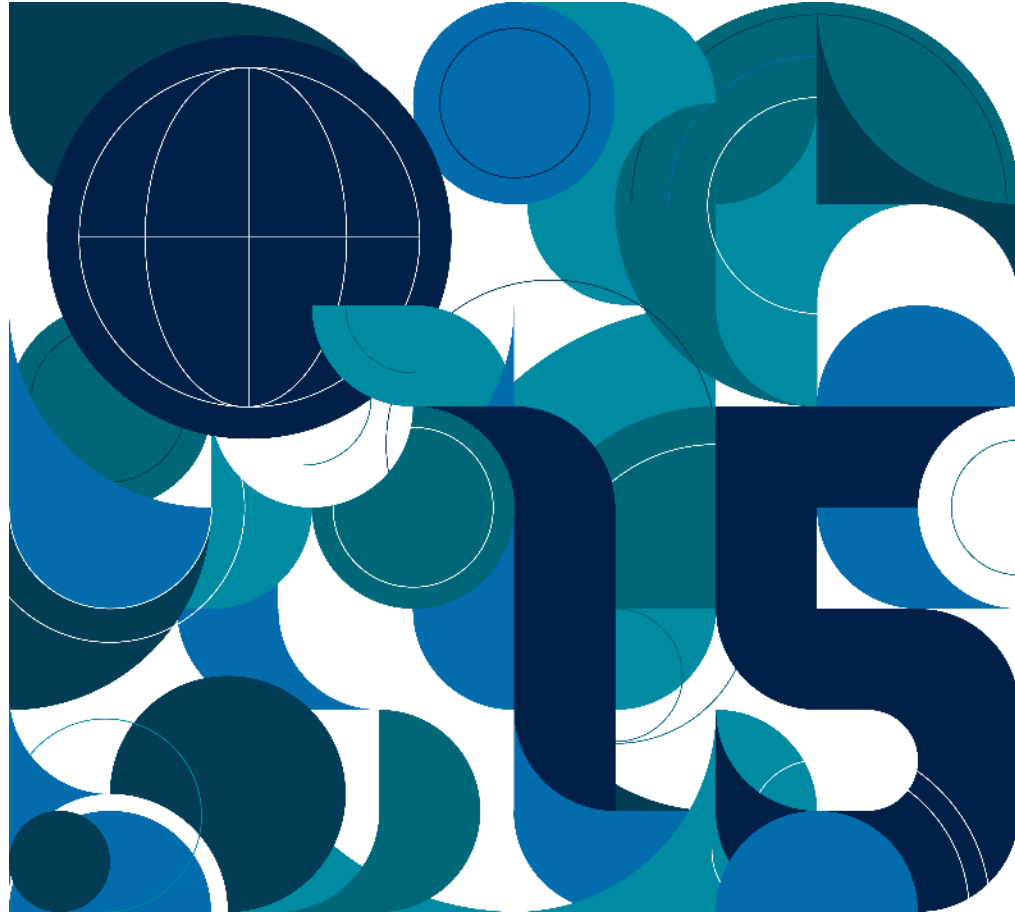
Annual Symposium
Celebrating 15 years of ethical, actionable, and practical solutions

GORDON HALL,
HARVARD MEDICAL SCHOOL

Executive and Steering Committees
WEDNESDAY, NOVEMBER 13, 2024
   EC/SC Meeting and Dinner

EC/SC and General Public
THURSDAY, NOVEMBER 14, 2024
   MRCT Center Annual Symposium

FRIDAY, NOVEMBER 15, 2024
   Vivli Annual Meeting, in conjunction with the MRCT Center:
   Innovations in Data Sharing

Register at: https://mrctcenter.org/mrct-center-annual-symposium/

Agenda

Background: Health Literacy and PowerPoint Accessibility

10 Steps for PowerPoint Accessibility:

1. Define the intended purpose for the PowerPoint
2. Define the intended audience for the PowerPoint
3. Design for mental processing
4. Design with appropriate language
5. Design for readability
6. Design for supportive sensory processing
7. Use Alt Text
8. Assess color contrast
9. Check accessibility
10. Plan for PowerPoint viewing and supplementary materials

Interactive Exercise: Test what you have learned on PowerPoint Accessibility

Health Literacy: background

Health literacy can be thought of as:

- An individual's capacities to obtain, process, and understand basic health information and services to make appropriate health decisions AND

- The abilities of those responsible for communicating information

It involves several concepts, listed below. We focus on the first three in this webinar.

- **Plain language**: writing in a clear ways that makes information easier to understand

- **Inclusive language/cultural considerations**: communicating sensitively

- **Clear/accessible design**: presenting information in ways that are designed for understanding, and in formats that are accessible for people with disabilities

- **Usability testing**: evaluating a product by testing it with others, including people with disabilities

- **Numeracy**: using math and number concepts in everyday life

- **Interactive techniques**: using engaging methods like learning exercises or group discussion

Accessible PowerPoints: background

Decisions are made at meetings and conferences that drive all aspects of clinical research.

Close to 60% of meetings are now virtual.

PowerPoint use is common at in-person meetings. It is nearly ubiquitous at virtual meetings.

People like to get a copy of the PowerPoint slides so they can review the information from the meeting.

If people can't access or fully review PowerPoints, they may lose opportunities to plan, conduct, participate in, and/or learn from clinical research.

Accessible PowerPoints: IRB perspectives part 1

Why it is important for IRBs?

IRBs can play a major role in how we help our research community, HRPP IRB staff, and Committee members who review research proposals to increase (better) their awareness of literacy and its relationship to Clinical or Socio-Behavioral Research and the importance of making research accessible to those who remain excluded.

Key reasons why inclusive & accessible research matters for disabled people/PWD:

- Accurate representation

- Identifying barriers and challenges

- Co-creation of solutions

- Combating ableism

- Empowerment and agency

- Ethical responsibility

Addressing Accessibility Issues in Institutional Review Board Policies

- Sample of 58 original land-grant universities in the U.S. Land-grant institutions (for a list of US land-grant institutions see here: https://usda-pup.egr.uh.edu/education-and-training/land-grant-universities-and-agricultural-programs/).

    o In 1864, Rutgers became New Jersey's land-grant institution after winning a competition against Princeton. Rutgers remains New Jersey's largest institution of higher education and its only land-grant institution.

- Researchers obtained IRB policies and related information and materials from each land-grant university's website, downloaded them, and stored these in separate files. Two had no publicly available online IRB policy information; one was under review, so the final sample included 55 land-grant universities.

eracy and Accessibility

Addressing Accessibility Issues in Institutional Review Board Policies, cont.

- Conducted keyword search to locate references to disability-related information:

    o Disability, Accommodation, Modification, Section 508, Section 504, Americans with Disabilities Act, ADA, Rehabilitation, Accessibility, Universal Design, Impairment, Technology, Readability, and Usability.

- Results showed that **none** of the schools in the sample included any of the keywords in their IRB policies to indicate a requirement for inclusive research design, such that students with disabilities would be members of the pool of potential research participants.

Resource: Milligan, M., Tew-Washburn, S., Doss, K. M., & Giambrone, J. P. (2019). Addressing Accessibility Issues in Institutional Review Board Policies. Disability Studies Quarterly, 39(1). Available at: https://doi.org/10.18061/dsq.v39i1.6062

eracy and Accessibility

Accessible PowerPoints: IRB perspectives part 2

Initial Steps for IRBs?

IRB members are critical in promoting inclusivity in research through the ethical review process and approval.

HRPPs can play a major role in helping staff and reviewers become better aware of accessibility and its relationship to clinical and socio-behavioral research. This can be achieved through educational workshops or training programs, up-to-date resource materials, etc.

Templates & Forms.

Ensure accessibility for all researchers and participants, including those with sensory, cognitive, or physical disabilities, by providing appropriate accommodations and communication formats. For example, NIH requires that women and members of racial and ethnic minority groups be included in all NIH-funded clinical research. NIH also designated people with disabilities as a population with health disparities (9.26.23).

Accessible PowerPoints: IRB perspectives part 2, cont.

Advocacy:

- Align with Key Disability Advocates and Organizations to conduct accessibility sessions led by people with expertise in disability inclusion in research that explicitly engage people with diverse disabilities.

- Develop a Community Action Board, including community representation and people of different disability types.

Accessible PowerPoints How-to
Step 1: Define the intended purpose for the PowerPoint

PowerPoint has many uses, in meetings, and elsewhere. Such as:

- A memory aid for people presenting to an audience.

- A summary of the key points of an in-person or virtual presentation.

- An on-demand training or educational tool. In some cases, this may involve embedding a video or recording in the PowerPoint.

- A tool to create infographics, informational handouts, instructions, or surveys.

- A slideshow, such as a photo album that is shown at the front of a room.

Give careful thought to PowerPoint purpose. Gather other PowerPoint examples that have been used for this purpose to see how they are structured.

Accessible PowerPoints How-to
Step 2: Define the intended audience for the PowerPoint

What is the expected audience size?
(Hint: Some meeting and training formats do not work well with large audiences. Plan your PowerPoint accordingly).

Will the audience include people with disabilities?
(Hint: Always).

What accommodations have been requested?
(Hint: Did you ask?)

Will the audience include non-English speakers?
(Hint: If the text on the PowerPoint will be translated, be sure to leave enough space. Text strings can be longer in languages other than English.

Accessible PowerPoints How-to
Step 3: Design for Mental Processing

Provide an agenda and/or background information early in the presentation.

Check the reading order for text or graphics on each slide. In English, we read from left to right and from the top to the bottom of the page. The presented information should flow in that order. Other languages may change that order.

Give opportunities for people accessing the presentation to take a break from being "talked-at." Pause for questions. Reinforce concepts with examples. Build in practice exercises.

Summarize key take-aways and lessons learned.
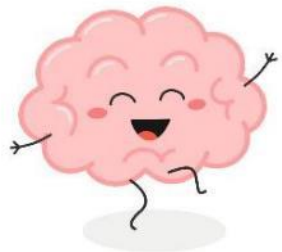
Accessible PowerPoints How-to
Step 4a: Design with appropriate language (plain language)

Plain language is a clear and understandable way of communicating. Helpful hints include:

- Break up large blocks of text into smaller paragraphs or bullet points.

- Identify complex words or phrases and substitute simpler ones. If you must use a complex word, such as "participant," include a common definition for it the first time you use the word. Or hyperlink to common definitions, such as those in the MRCT Center Clinical Research Glossary, available at: https://mrctcenter.org/glossary/ .

- Use a health literacy checker app to test the grade level for your text, such as https://www.sydneyhealthliteracylab.org.au/health-literacy-editor.

- Edit to make sure that the text is at an 6th grade reading level. If you are working with people with cognitive and intellectual disabilities, you make need to reduce the grade rading level.

Please note: Full instructions on plain language are available on the MRCT Center Plain Language webpage (at: https://mrctcenter.org/health-literacy/tools/overview/plain-language/). Or in the MRCT Center Accessibility 101 training on Plain Language.

Accessible PowerPoints How-to
Step 4b: Design with appropriate language (inclusive language)

Check to avoid expressions that may exclude people with disabilities such as "lift our voices," "put your best foot forward," or "stand with us."

Work with people with disabilities to assess if they would like to use person-first language (e.g., person with autism), identity-first language (e.g., autistic person) or alternate between the two. You may explain your choice/s at the beginning of your PowerPoint presentation if you wish.

Recognize that people have intersecting identities. For example, you can also review the MRCT Center LGBTQIA+ Inclusive Language Checklist, at: https://mrctcenter.org/wp-content/uploads/2024/04/Inclusive-language-checklist.pdf

Accessible PowerPoints How-to
Step 5a: Design for readability (font, bullets, and alignment)

- Use unique and descriptive slide titles.

- Do not use serif fonts (e.g., Times New Roman, Garamond) or "fun" fonts that can be difficult to see (e.g., Magneto, Curlz MT). Instead, use a sans serif font (e.g., Calibri, Avenir, Arial), and aim for 20-point size or larger.

- Use the standard bullets option in PowerPoint. Add full stops at the end of each bullet point so that screen readers can recognize them.

- Use left aligned text, not justified or centered.

- Limit use of bold font, italics, ALLCAPS, asterisks, or dashes.

Accessible PowerPoints How-to:
Step 5b: Design for readability (avoid screenshots)

Avoid using screenshots (like the one at right). The words in them can't be read by screen readers, because the screenshot is a picture. Also, screenshots can have small font and appear blurry.

If you must use a screenshot, clearly describe in the Alt Text (see slide 14) for the screenshot the information being conveyed.

Accessible PowerPoints How-to:
Step 5b: Design for readability (avoid screenshots, cont.)

A better option is to recreate the information from the screenshot into a text box or table that can be read by screen readers.

To format tables for screen readers, make sure you can get to each cell (starting at the top left) using your tab key. Also, add a header row.

Grouping	Key Points
1. Be respectful	● Don't assume: Ask, and practice active listening. Provide the opportunity for participants to take time to think and to ask for something to be repeated, rephrased, or expressed visually.
	● People with disabilities are capable adults. Respect autonomy and speak directly to the individual. When possible, keep your face and mouth visible. Treat physical aids as an individual's personal space. Do not pet or walk beside service animals.
2. Format communication materials for inclusive reading and mental processing	● Use appropriate font such as large print (minimum of 12-point; 16-point, if possible, in documents) sans serif font (e.g., Ariel, Calibri, Verdana). Avoid justified text, use of *italics,* and ALL CAPS.
	■ Use contrasting colors and available tools to check that the degree of contrast is sufficient. Make key points and clickable items large and separated by white space.
	■ Refrain from animation, visuals that include flashing or spinning, pop-ups or auto-play audio (or allow for those setting options).

Accessible PowerPoints How-to
Step 5c: Design for readability (appropriate line spacing)
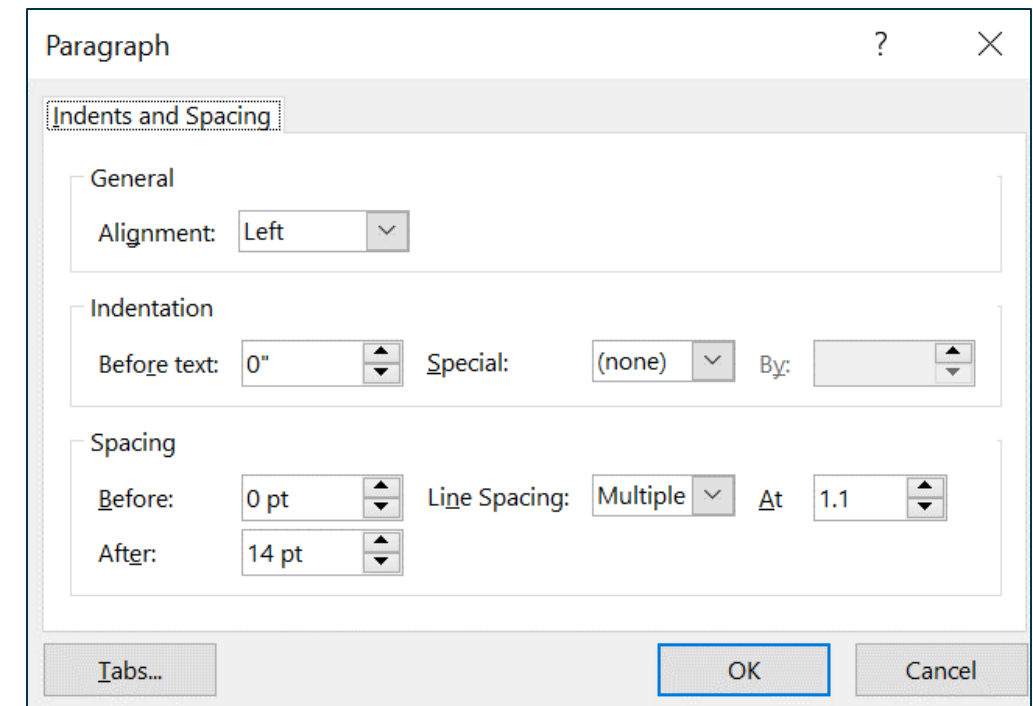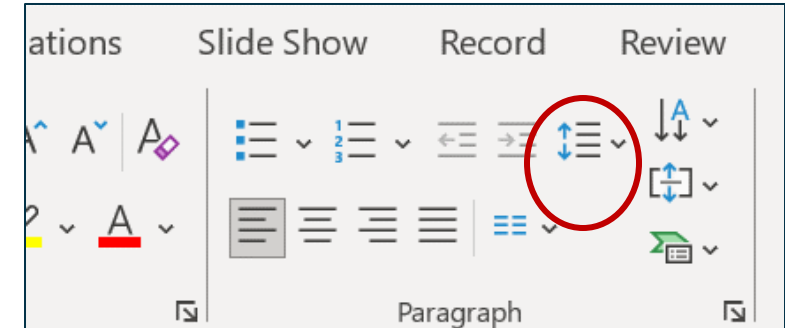
We recommend using a line spacing of "Multiple" at a minimum of 1.1.

To set the line spacing there are two different methods:

- Highlight the paragraph/s with your cursor and right click. Then click on "Paragraph."

- Go to the top banner, in the section for "Paragraph," and click on the icon with two blue up/down arrows next to four lines and a small down arrow.

Accessible PowerPoints How-to
Step 6: Design supportive sensory processing

Avoid using busy patterns. Especially avoid placing important information like titles, dates, or quantities on/within a busy pattern. Likewise, avoid using CATPCHA or RECAPTCHA tests as security measures to access PowerPoint files. For alternatives to CATPCHA or RECAPTCHA tests, see here: https://www.w3.org/WAI/GL/wiki/Captcha_Alternatives_and_thoughts

Avoid using the animation feature in PowerPoint, objects that spin or fly across the screen, or pop-ups. If you do use animation, use only one animation per slide, and use options like "fade in" or "appear" that don't involve the object moving or flashing.

Disable auto-play audio or video.

Make sure all elements are clearly visible on the screen. For example, if the user must mouse over an invisible element on the screen to show the "next slide" arrow, that is not accessible.

Do not use countdowns, ticking clocks, or timeouts.

Accessible PowerPoints How-to
Step 7: Use Alt Text (background)

Alt Text (or Alternative Text) are written statements that describe an image or graphic for a person who is not able to see it.

Alt Text can be read by screen readers. Screen readers are assistive technologies (software or hardware) that read information about images, menus, dialogue boxes, and files and then conveys that information through an audio or Braille format to the person using the screen reader.

Alt Text can be used for icons, pictures, graphics, illustrations, logos, and sometimes for charts (depending upon the complexity of the chart) and in Word documents, PowerPoint, social media, websites, apps, and some other participant-facing media. Alt Text can be displayed by websites if images do not load properly and are therefore useful for everyone.

Accessible PowerPoints How-to
Step 7: Use Alt Text (background, cont.)

Important: Alt Text should convey the meaning of an image as it relates to the content/context.

X   A picture of a scale.

✔   An icon of a scale, representing justice, that is equally balanced.

For decorative objects (e.g., a border or a colored line that underlines text) write "null" in the Alt Text box or select "Mark as decorative" when you get to the Alt Text screen.

Do not insert emojis or personal opinions (e.g., a disheveled patient, a beautiful patient) in Alt Text.

You should be able to clearly describe an image through brief Alt Text. Avoid using images that require abstract thinking. If you must write more than 2-3 sentences, the image is too complex.

Accessible PowerPoints How-to
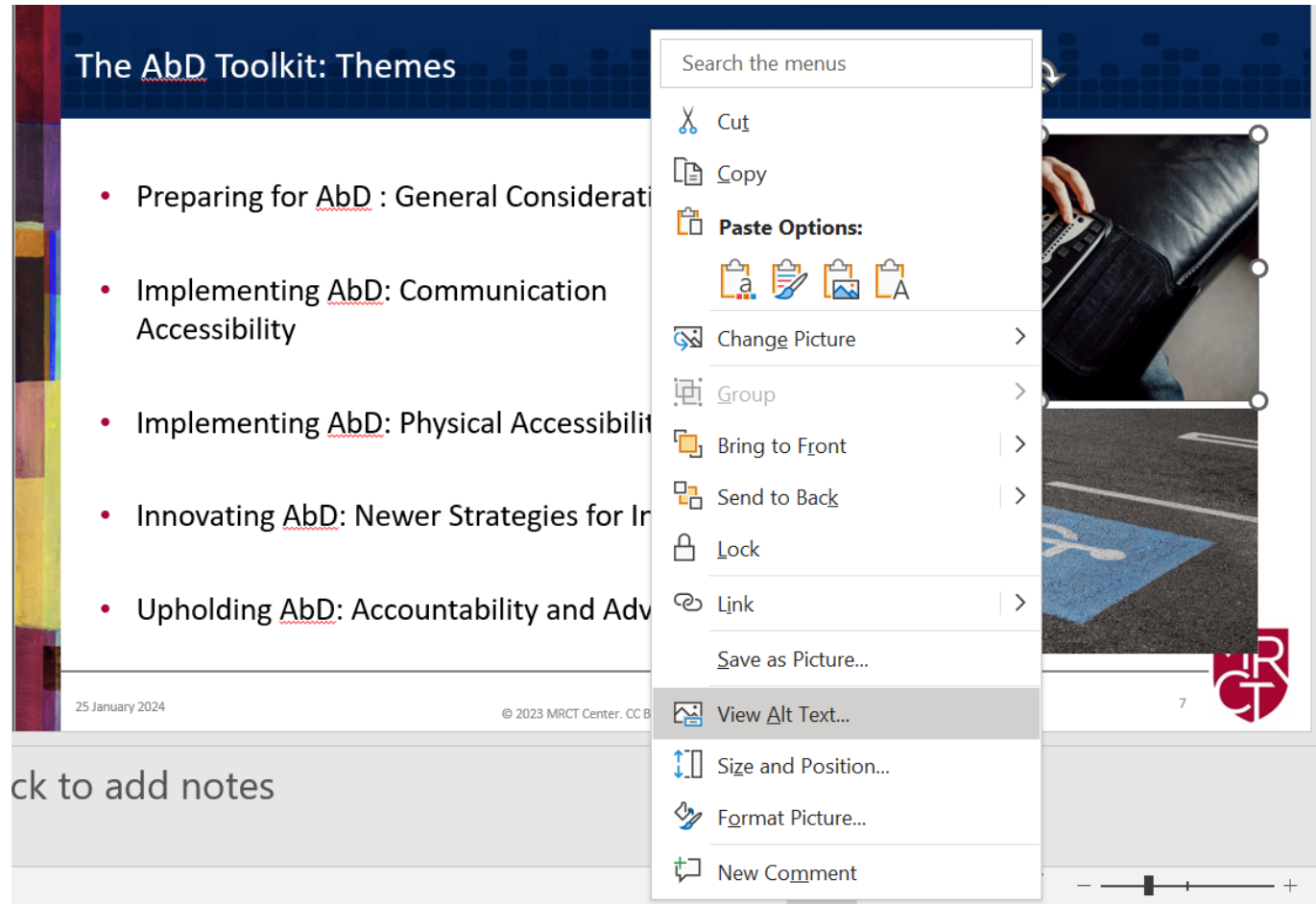## Step 7: Use Alt Text (instructions)

Right-click on any photo, chart, or image.

Select View Alt Text from the drop-down list.

Write Alt Text into the Alt Text box that pops up.

Please note: Full Alt Text instructions and exercises can be found in the MRCT Center Accessibility 101 Training on Alt Text.

Accessible PowerPoints How-to
Step 8: Access Color Contrast (background)

Color contrast should be assessed for a high level of contrast between:

- Text/foreground color and the fill/background color
- Objects such as a text box fill color and a border
- Visual elements on charts and maps

The key is to avoid light text on a light background or dark text on a dark background.

Please note that color should not be the only means of conveying information. Descriptive text is a helpful complement.

Welcome to the MRCT Center ✓

Welcome to the MRCT Center ✓

X **Welcome to the MRCT Center**

X **Welcome to the MRCT Center**

Welcome to the MRCT Center ✓

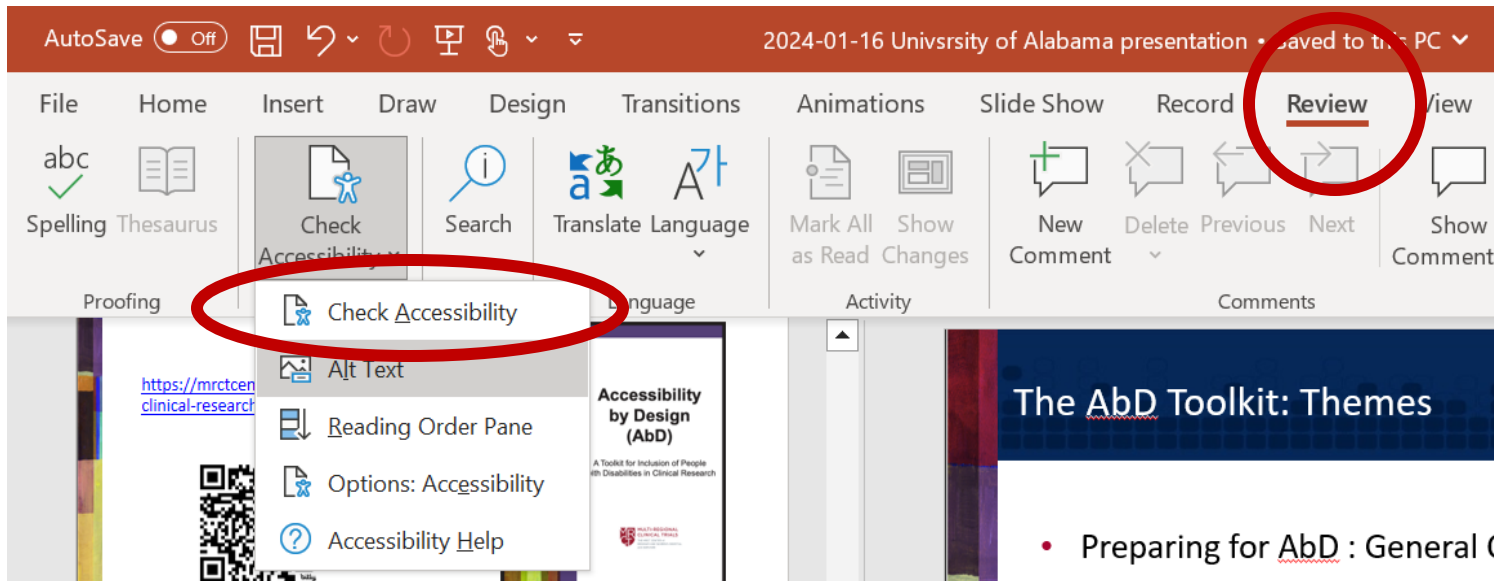# Accessible PowerPoints How-to
Step 9: Check Accessibility

Use the Check Accessibility feature to help you spot and fix accessibility errors while you work.

Go to "Review" on the top ribbon, and then to "Check Accessibility."

You can ask the program to check all features of accessibility (circled below), or individual features of accessibility, such as Alt Text.

Accessible PowerPoints How-to
Step 10: Plan for PowerPoint viewing and supplementary materials

You've formatted your PowerPoint for accessibility. Congratulations! However, your job is not done. Please consider the following as your PowerPoint goes out in the world:

- Formatting registration forms and portals for accessibility; Asking about accommodations.

- Enabling closed captions in Zoom/virtual meetings; [In your PowerPoint formatting] Making sure the "Always Use Subtitles" box is checked on the Captions & Subtitles section under "Slide Show."

- Recording the session, if the PowerPoint is presented in-person/virtually; Posting the video/audio recording and sharing a link with meeting attendees.

- Posting a transcript (that has been reviewed and edited) of the recorded session.

- Posting a bibliography of resources mentioned in the PowerPoint, inclusive of what was posted in the chat feature (if using Zoom), with weblinks for each resource.

- Formatting all post-webinar or training follow-up communications for accessibility.

Tips from experience: Start at the beginning

This is a lot of information, and you might not know where to start!

Consider using a pre-made, accessible PowerPoint template by typing "accessible templates" in the search field under the 'New' slide deck tab:
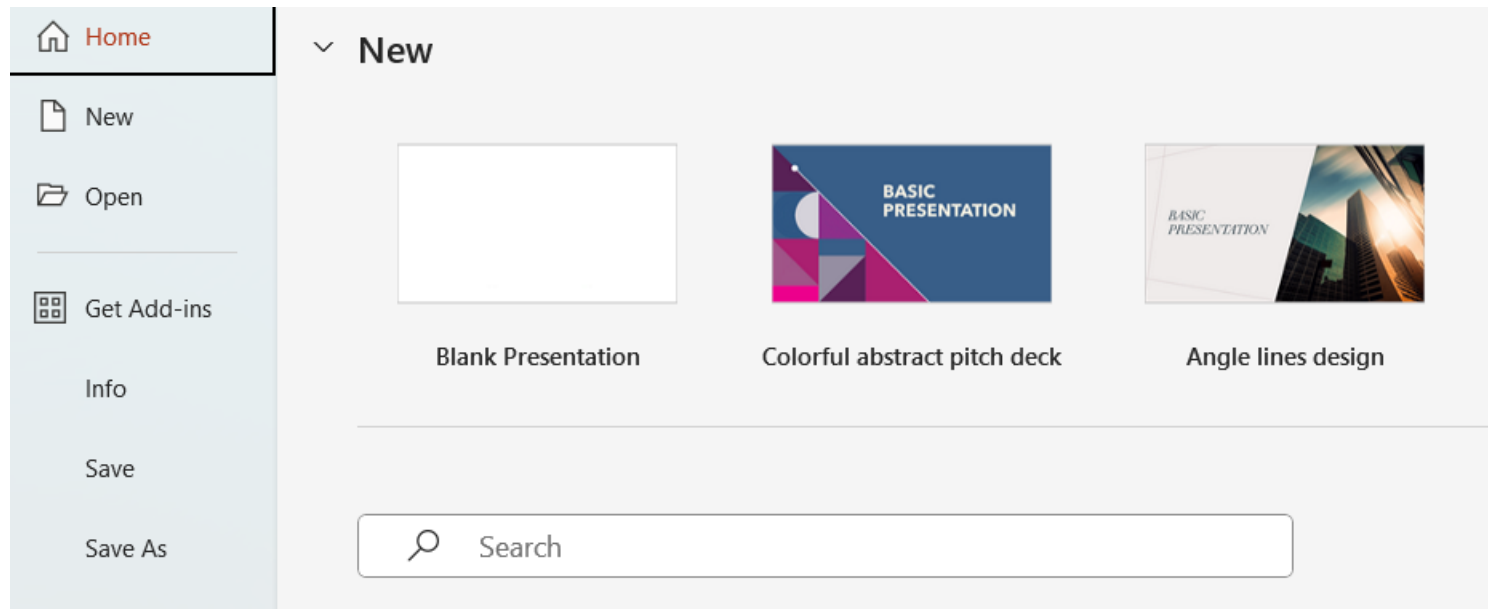
Tips from experience: Use Microsoft and other support tools

If you modify these templates, or just want to check for particular kinds of accessibility in an already-made slide deck, make use of Microsoft and other support tools.

Example: Checking the reading order

Let's say you want to make sure the reading order is correct for a screen reader. Check the reading order on each slide by clicking on:

Review > Check Accessibility > Reading order pane

And keep this video for reference: https://support.microsoft.com/check reading order

Tips from experience: Rules vary by language

Accessibility rules change for different languages. For example:

- In Spanish text typically runs longer so you need to factor length into the size and placement of any text-based content.

- In Arabic you read from right to left, so the reading order is different.

- Screen reader pronunciation for participants must be accounted for in audio settings for text and multimedia so that other languages are intelligible.

Accessible PowerPoints: Exercise instructions

Please review the following two slides. Each will show a hypothetical slide that has three or more areas where the slide could be improved for accessibility.

If you are taking the training on your own, you may write down the problems that you see. If you are taking the training with a group, you may raise your hand or submit thoughts to the training moderator via the Zoom chat, a WordCloud, or Zoom WhiteBoard (where available and accessible*). Be sure to reference the exercise number you are working on.
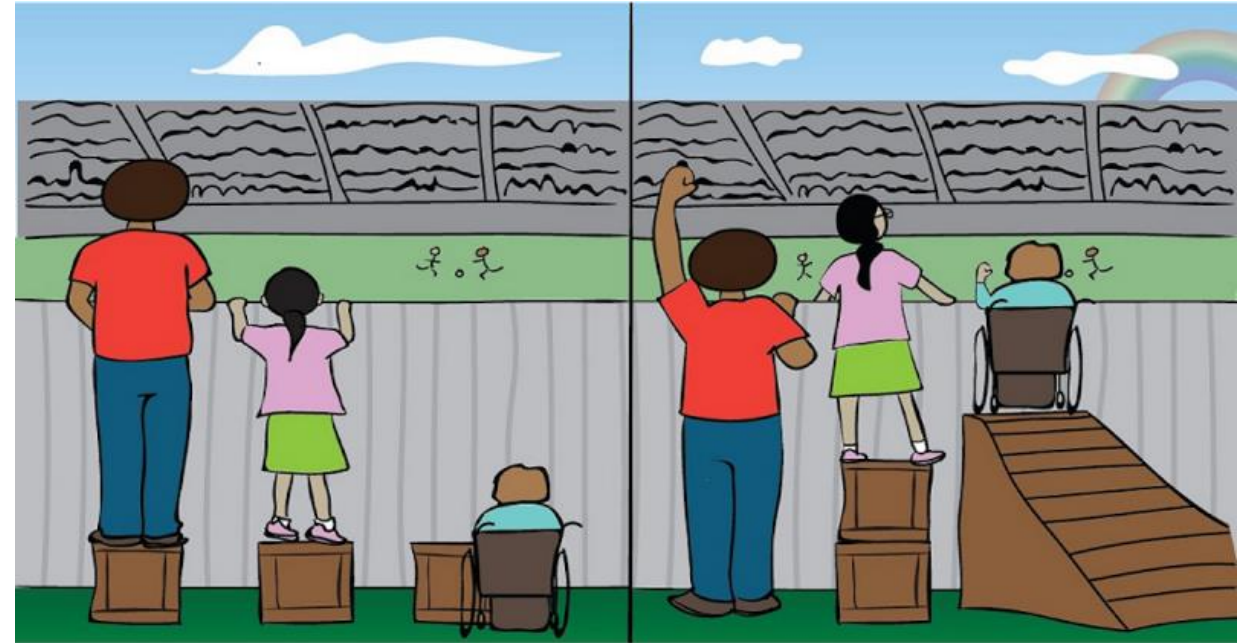
*See here for information on creating accessible WordClouds: https://www.linkedin.com/advice/1/what-most-effective-ways-create-accessible-word-pzk4f

Accessible PowerPoints Exercise 1:

EQUITY is everyone getting the support that they need.

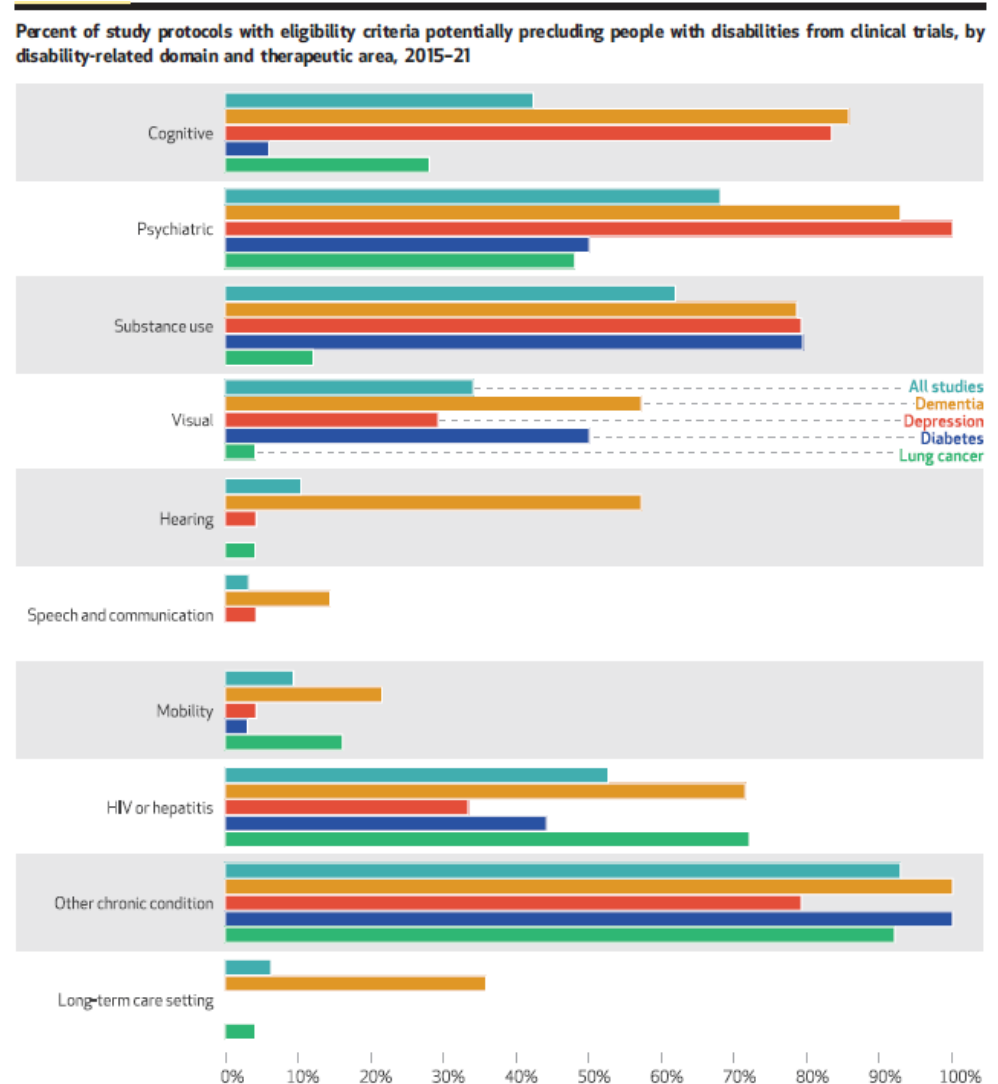^EQUALITY^ is everyone getting the same support.

Accessible PowerPoints Exercise 2:

Exhibit 3

This chart shows the frequency of exclusions in each disability domain by therapeutic area. The highest frequencies of exclusions were coded as other chronic (93 percent), psychiatric (68 percent), substance use (62 percent), HIV or hepatitis (53 percent), and cognitive or intellectual (42 percent) domains; the lowest frequencies of exclusion were coded as visual (34 percent), hearing (10 percent), mobility (9 percent), long-term care (6 percent), and speech and communication (3 percent) domains. Because the disability domain "other chronic" served as a catchall for exclusions that did not fit neatly into any other domain, it is unsurprising that we found high rates of exclusion within it across all therapeutic areas.

DeCormier Plosky et al., Article at:
https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2022.00520

Percent of study protocols with eligibility criteria potentially precluding people with disabilities from clinical trials, by disability-related domain and therapeutic area, 2015–21

Accessibility 101 Training Modules

More detailed information on "Accessibility 101" can be found in our complementary training modules. These modules can be taken on an individual basis or used by moderators (with permission from, and acknowledgement of, the MRCT Center) for group training.

- Accessibility 101 Training Module 1_Learning About Disability Inclusion

- Accessibility 101 Training Module 2_Mapping the Participant Journey

- Accessibility 101 Training Module 3_Creating Alt Text

- Accessibility 101 Training Module 4_Assessing Color Contrast

- Accessibility 101 Training Module 5_Using Plain Language

- Accessibility 101 Training Module 6_Developing Accessible PowerPoints

Website: https://mrctcenter.org/resource/accessibility-101-training-series/

Q&A

Please put your questions in the Q&A box, which is at the Zoom menu bar at the bottom of your screen.

Thank You!

Learn more at www.mrctcenter.org

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