



# Creating Materials to Meet Urgent Health Needs

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## Disclosure

- I have no actual or potential conflict of interest in relation to this program/presentation.

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## Learning Objectives

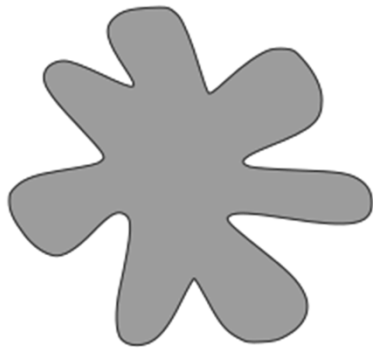
- Locate CDC's health literacy/clear communication materials
- Evaluate the clarity and usability of health information and messages

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Locate CDC's health literacy/clear communication materials

Evaluate the clarity and usability of health information and messages

## The Kiki Bobo Game



O



X

Source: <https://www.nature.com/articles/nature20474>

Keep the Kiki Bobo game in mind as we go through today's presentation, as you create health communication messages, and even in your personal communication.

# Plain Language and Health Literacy

What does plain language mean to you?

## What Is Plain Language?

- Plain language is communication that your audience can understand the first time they hear or read it
- Plain language is a tool that builds health literacy



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Plain language is communication your audience can understand the first time they hear it or read it.

Plain language is a health literacy tool.

## Health Literacy

- **Personal health literacy** - degree to which individuals can find, understand, and use information and services to inform health-related decisions and actions for themselves and others
- **Organizational health literacy** - degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others

Source: <https://www.cdc.gov/healthliteracy/learn/index.html>

Plain language is a health literacy tool.

**When we use plain language principles, we're building a health-literate organization.**

These health literacy definitions were released with Healthy People 2030 and update the definition that appeared in Healthy People 2010 and 2020.

- <https://health.gov/our-work/healthy-people/healthy-people-2030/health-literacy-healthy-people-2030>
- <https://health.gov/our-work/healthy-people/about-healthy-people/history-healthy-people>
- <https://health.gov/our-work/healthy-people/healthy-people-2030>

## Crash Course in Plain Language

The main health literacy tool I'll introduce you to today is the CDC Clear Communication Index, the Index, for short, but using the Index requires a crash course in plain language guidelines.



## Know Your Audience

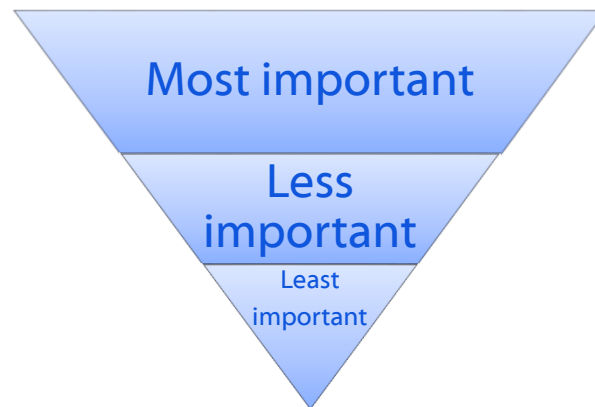
- Write for your audience
  - Knowledge of topic
  - Motivations
  - Prior experience
  - Culture
  - Language proficiency
- Address separate audiences separately
- Put yourself in each audience's shoes

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The first guideline is know your audience.

## Use Logical Organization

- Most important information (main message) at beginning
- Background (and least important) information at the end



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The next guideline is: Use logical organization.

## Logical Organization: Webpage Screenshot

# Flu & People 65 Years and Older

[Español](#) | [Other Languages](#)



Getting a flu vaccine during 2020-2021 is more important than ever because of the ongoing COVID-19 pandemic. Flu vaccination is especially important for adults 65 years and older, who account for most hospitalizations and deaths from flu and from COVID-19.

Protect Your Health



Source: <https://www.cdc.gov/flu/highrisk/65over.htm>

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Here you can see the most important information on the webpage is at the top and emphasized with a yellow box.

## Logical Organization: Factsheet Screenshot

People 65 Years and Older **Need a Flu Shot**

**FIGHT FLU**



Information for adults 65 years and older

**Influenza (flu) can be a serious illness, especially for older adults.**

**FACT:** *People 65 years and older are at high risk of developing serious complications from flu, compared with young, healthy adults.*

This risk is due in part to changes in immune defenses with increasing age. While flu seasons vary in severity during most seasons, people 65 years and older bear the greatest burden of

People 65 years and older should get a flu shot, not a nasal spray vaccine. They can get any flu shot approved for use in their age group with no preference for any one vaccine over another. There are regular flu shots and there also are enhanced vaccines approved for use in people 65 and older that may provide a better immune response.

Source: <https://www.cdc.gov/flu/pdf/freeresources/seniors/seniors-vaccination-factsheet-final.pdf>

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On this factsheet, you can also see the most important information—the one thing you want readers to remember—at the top of the page, emphasized in blue and green font and some bold font: People 65 years and older need a flu shot.

## Use Common, Everyday Words

### **Before:**

Dermal exposure to hazardous agents can lead to systemic toxicity.

### **After:**

Harmful chemicals that touch your skin could poison other parts of your body.

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Next guideline: Use common, everyday words.

## Common, Everyday Words: Your Turn

### Before:

If you live alone, **maintain social ties** with coworkers, friends, and family members.

### After:

If you live alone, **stay in touch** with coworkers, friends, and family members.

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Now it's your turn.

## **CDC Tool: Everyday Words for Public Health Communication**

- <https://www.cdc.gov/healthcommunication/everydaywords/index.html>
- Provides:
  - Words to use instead of the public-health term
  - Sentence with original term
  - Sentence with plain-language term

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- Everyday Words for Public Health Communication offers recommendations on how to reduce jargon and improve reader understanding.
- Everyday Words suggest a plain-language word or words to use in place of the public-health term, shows how the public health term was used in the original sentence, and shows how the sentence was revised to use plain language.
- <https://www.cdc.gov/healthcommunication/everydaywords/index.html>

## Define Acronyms and Abbreviations (and Limit Their Use)

- Define it the first time used
  - Example: The National Safety Council (NSC) lists safety observances and events on its website.
- If term only used once, spell it out and don't use acronym
- Minimize use of acronyms and abbreviations
  - They tax your readers' memory, which takes focus away from your content

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Define acronyms and abbreviations the first time you use them. Minimize their use.



## Use Active Voice

- **Active:** Subject (person, place or thing) does something (action/verb)
- **Passive:** Subject has an action performed upon it
- **Examples:**
  - The company polluted the lake. [Active]
  - The lake was polluted by the company. [Passive]

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Active voice is the number one technique that will change the tone of your writing.

## How to Identify Passive Voice

- The lake was polluted by the company. [**Passive**]
- Passive has helping verb: is, are, was, were, has, had, has been, had been
- Passive has past participle. Past participle ≠ Past tense.
- Past participle *needs* helping verb.
- **Simplest sentence is active voice**

**Subject** → **Verb** → **Object**  
**The company** → **polluted** → **the lake**

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Here are some tips on how to identify passive voice.

## Passive Voice Can Leave Reader Wondering Who Performed Action

### Passive:

Partnerships                      were                      increased.  
(object)                      (helping verb)                      (past participle)

No subject

### Active:

We                      increased                      partnerships.  
(subject)                      (verb)                      (object)

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Passive voice sentences may leave the reader wondering who performed the action.

## **CDC Clear Communication Index: 4 Questions and 20 Scored Items**

The CDC Clear Communication Index is a tool to help you develop clear communication products or assess and revise those that have already been developed.

## CDC Clear Communication Index

- <https://www.cdc.gov/ccindex/index.html>
- Tool to develop and assess public communication material
- 4 introductory questions
- 20 scored yes/no items cover features that improve public's understanding of information
- Use online widget or online scoresheet to answer questions and automatically calculate score

Source: Baur C, & Prue C. 2014. [The CDC Clear Communication Index Is A New Evidence-Based Tool to Prepare and Review Health Information](#). Social Marketing and Health Communication, 15(5), 629-637. 21

The Index has a cover sheet with 4 open-ended, unscored introductory questions. The Index also has 4 scored parts that include a total of 20 yes/no items.

## **CDC Clear Communication Index: Cover Sheet - 4 Questions**

Let's look at the cover sheet first. Doing a good job of answering the questions on the cover sheet will help you score higher on the scored questions.

## The Cover Sheet: 4 Questions Before Scoring

CDC Clear Communication Index Score Sheet

- Who is your primary audience?
- What do you know about the health literacy skills of your audience?
- What is your primary communication objective?
- What is the main message in the material?

Name of material \_\_\_\_\_

Name of person scoring \_\_\_\_\_

Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

**Before you begin,** identify your primary audience, their health literacy skills, your primary communication objective, and main message. You must know these 4 pieces of information to score the material accurately. If you don't have this information, wait until you do to score the material.

**Note about translated materials:** If the audiences for the English and non-English versions are different, you should create and score the materials separately to account for audience differences.

**1. Who is your primary audience?** \_\_\_\_\_

*Note: See Appendix B of the User Guide for a list of common public health audiences.*

**2. What do you know about the health literacy skills of your audience?**

*List as many relevant characteristics about your audience as you can. Try and include evidence about their literacy and numeracy skills; words, numbers, and health concepts they find familiar; their prior experience with the topic; and their ability to comprehend different information formats, such as graphs. If you don't have any information at all, assume average to low health literacy skills.*

**3. What is your primary communication objective?**

*A communication objective is what you want your audience to think, feel, or do after they receive the message or material. Example 1: Increase the proportion of women between 18-25 years who intend to increase consumption of folic acid. Example 2: Increase the proportion of sexually active adults with favorable attitudes about taking an HIV test.*

**4. What is the main message statement in the material?**

*The main message statement is the one thing the audience must remember. The statement may be 1-3 short sentences.*

**If you are reviewing an existing material with multiple messages, list all possible messages.**

In the next 4 slides, we'll examine each of these questions.

## Cover Sheet Q1: Audience Research

1. Who is your primary audience?

Be very specific. Examples:

- People over the age of 80 with questions about vaccine safety
- Partner organizations looking for evidence-based programs to increase exercise among adults over the age of 65 in their communities

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Be very specific about who your audience is. Your audience is not everyone.



## Cover Sheet Q2: Audience Research

2. What do you know about the health literacy skills of your audience?



If can't find info on audience's health literacy skills, assume low to average.

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Literature search can be helpful.

If can't find info on your audience's health literacy skills, assume low to average.

[See Table 1-1 on page 5 and Figure 1-1 on page 6 of [The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy \(ed.gov\)](https://nces.ed.gov/pubs2006/2006483.pdf) (<https://nces.ed.gov/pubs2006/2006483.pdf>) for the meanings of the different literacy and health literacy levels.]

**[NEXT SLIDE]**

## Cover Sheet Q3

3. What is your primary communication objective?

- What you want your audience to think, feel, or do after they read your material
- No: ~~Provide information on outbreak X~~  
Yes: Increase the number of major news outlets that share accurate information about outbreak X.
- No: ~~Tell people about disease Y.~~  
Yes: Increase the percentage of older adults who get screened for disease Y.

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Your communication objective is what you want your audience to think, feel, or do after they read your material

## Cover Sheet Q4

4. What is the main message in the material?

- The main message is what the audience must **remember**
- 1-3 short sentences
- “What You Should Know about Disease Z” = title, **not a main message**
- Example **main message**:  
“You could have disease Z and not feel sick. This means you could pass disease Z to others and not know it. If you’ve been exposed to someone who has disease Z, get a Z test to find out if you have disease Z.”

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The main message is the one thing the audience must remember

## **CDC Clear Communication Index: 20 Scored Items**

Now let's talk about the scored sections of the Index

## Scored Sections

### Part A: Core

- Main Message and Call to Action
- Language (plain language)
- Information Design
- State of the Science

### Part B: Behavioral Recommendations

### Part C: Numbers

### Part D: Risk



Scoring helps ensure your audience can find the main message, understand the material, and act upon it.

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We call Part A the Core because along with the cover sheet, you will use it no matter what material you're scoring. Parts B, C, and D might not apply to every type of material.

## **Clear Communication Index Part A – 11 Core Items**

Part A has 11 scored items.

<b>Part A: Core</b> <b>The items in this section (1-11) apply to all materials.</b>	
Questions	Score (Check one per question)
<b>Main Message and Call to Action</b>	
<b>1. Does the material contain one main message statement?</b> <i>A main message is the one thing you want to communicate to a person or group that they must remember. A topic, such as heart disease or seasonal flu, isn't a main message statement. <u>If the material contains several messages and no main message, answer no.</u> (User Guide page 5)</i>  <b>NOTE:</b> If you answered <b>No</b> to Question 1, <b>score 0 for Questions 2-4 and continue</b> to Question 5.	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>2. Is the main message at the top, beginning, or front of the material?</b> <i>The main message must be in the first paragraph or section. A section is a block of text between headings. For a Web material, the first section must be fully visible without scrolling. (User Guide page 6)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>3. Is the main message emphasized with visual cues?</b> <i>If the main message is emphasized with font, color, shapes, lines, arrows or headings, such as "What you need to know," answer yes. (User Guide page 7)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>4. Does the material contain at least one visual that conveys or supports the main message?</b> <i>For example, count photographs, line drawings, graphs and infographics as visuals. <u>If the visual doesn't have a caption or labels, answer no. If the visual has human figures who aren't performing the recommended behaviors, answer no.</u> (User Guide page 8)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>5. Does the material include one or more calls to action for the primary audience?</b> <i>If the material includes a specific behavioral recommendation, a prompt to get more information, a request to share information with someone else, or a broad call for change, answer yes. <u>If the call to action is for someone other than the primary audience, answer no.</u> (User Guide page 10)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0

- A1 – A4: **one** main message and how you support it.
- If answer No to A1, you must answer No to A2-A4, A6, and A10.
- A5: Calls to action (CTAs) must be for primary audience.
- CTAs **don't** have to be in main message.

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[Go through questions 1-5]

## A5: Calls to Action (CTA) – Must be for primary audience

- CTA: What you want primary audience to do after reading or listening to your information.
- Examples:
  - Find more information at... **[weak but acceptable]**
  - Talk to or ask questions of a healthcare provider or public health professional
  - Get screened for a health condition or disease
  - Take medicine as directed
  - Share information with other people

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[Define call to action and provide examples]



## More Examples of CTAs

- Follow a recommendation, such as getting vaccinated
- Make a health behavior change, such as quit smoking
- Support or recommend a policy or program change\*
- Fund research or programs about a topic\*
- Use evidence-based programs\*
- Follow the example of successful organizations or programs\*

\*These CTAs are more appropriate for policy-making audiences, such as public health departments or partner organizations. See examples at

[https://www.cdc.gov/transportationsafety/native/factsheet.html#prevent-injuries.](https://www.cdc.gov/transportationsafety/native/factsheet.html#prevent-injuries) 33

Here are more types of calls to action. The audience for the last 4 CTAs on this slide are more appropriate for policy-making audiences such as public health departments or partner organizations than they are for the public. For example, you're not going to recommend that members of the public fund research.

**Let's look at part of a CDC webpage and see how well it addresses questions A1-A5.**  
[NEXT SLIDE]

## Visual Cue vs. Visual

**Visual Cue:** Main message emphasized with bold font.

**Visual:** Photo with relevant caption.

### Common Colds: Protect Yourself and Others

[Español \(Spanish\)](#)

Sore throat and runny nose are usually the first signs of a cold, followed by coughing and sneezing. Most people recover in about 7-10 days. You can help reduce your risk of getting a cold: wash your hands often, avoid close contact with sick people, and don't touch your face with unwashed hands.

Common colds are the main reason that children miss school and adults miss work. Each year in the United States, there are millions of cases of the common cold. Adults have an average of 2-3 colds per year, and children have even more.

Most people get colds in the winter and spring, but it is possible to get a cold any time of the year. Symptoms usually include:



Help reduce your risk of getting a cold by washing hands often with soap and water.

Source: <https://www.cdc.gov/features/rhinoviruses/>

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We use this slide to show you the difference between a visual cue (question 3) and a visual (question 4)

<b>Language</b>	
<b>6. Do both the main message and the call to action use the active voice?</b> <i>If only the main message or only the call to action uses the active voice, answer no. If you answered no to #1 or #5, answer no. (User Guide page 11)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>7. Does the material always use words the primary audience uses?</b> <i>If all specialized or unfamiliar terms are explained or described (not just defined) the first time they are used, answer yes. Acronyms and abbreviations must be spelled out and explained if unfamiliar to the audience. (User Guide page 12)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>Information Design</b>	
<b>8. Does the material use bulleted or numbered lists?</b> <i>If the material contains a list with more than 7 items, and the list is not broken up into sub-lists, answer no. If the list is for additional information or references only or at the end of the material, answer no. (User Guide page 14)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>9. Is the material organized in chunks with headings?</b> <i>This item applies to prose text and lists. If the chunks contain more than one idea each, answer no. If the headings don't match the information chunks, answer no. (User Guide page 15)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>10. Is the most important information the primary audience needs summarized in the first paragraph or section?</b> <i>The most important information must include the main message. A section is a block of text between headings. For a Web material, the first section must be fully visible without scrolling. (User Guide page 17)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>State of the Science</b>	
<b>11. Does the material explain what authoritative sources, such as subject matter experts and agency spokespersons, know and don't know about the topic?</b> <i>If the material addresses both, answer yes. If the material addresses only one (what is known or not known), answer no. (User Guide page 18)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>Part A score</b>	<b>Total 0 / 11</b>

If answer No to A1 or A5, must answer No to A6.

[Everyday Words for Public Health Communication](#) may be a good resource for A7.

If answered No to question A1, answer No to question 10.

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[Go through questions 6-11.]

## A11: State of the Science

Does the material explain what authoritative sources, such as subject matter experts and agency spokespersons, **know and don't know** about the topic?

Although scientists identify most common side effects of a vaccine in studies before the vaccine is licensed, they may not detect rare adverse events in these studies. Therefore, the U.S. vaccine safety system continuously monitors for possible side effects after the FDA licenses a vaccine. When millions of people receive a vaccine, less common side effects that studies did not identify earlier may occur.

Source: <http://medbox.iab.me/modules/en-cdc/www.cdc.gov/vaccines/parents/vaccine-decision/index.html>

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When we admit what we don't know about a topic, it builds trust w our audience. If the audience trusts the messenger, the audience is more likely to follow our recommendations.

# A11: State of the Science

## Zika and Pregnancy

Zika and Pregnancy Home

Pregnancy Home > Zika and Pregnancy Home

Basics -

Pregnant Women

Women & Their Partners  
Trying to Become Pregnant

Preventing Pregnancy

Data & Statistics +

Research and Tracking +

If Your Family has been  
Affected +




Testing and Follow-up +

Materials & Multimedia +

Stories from the Field +

Articles & Key Findings

Basics

What we know

- Zika virus can be passed from a pregnant woman to her fetus.
- Infection during pregnancy can cause a birth defect called microcephaly and other severe fetal brain [defects](#).
- Zika primarily spreads through infected [mosquitoes](#). You can also get Zika [through sex](#) without a condom with someone infected by Zika, even if that person does not show symptoms of Zika.
- There is [no vaccine to prevent or medicine to treat Zika](#).
- Pregnant women should not travel to areas with risk of Zika.

What we do not know

- How likely it is that Zika infection will affect your pregnancy.
- If your baby will have birth defects if you are infected while pregnant.
- The full range of health effects that Zika virus infection during pregnancy might lead to.

Source: <https://www.cdc.gov/pregnancy/zika/pregnancy.html>

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Another example of explaining what we know and don't know.

## **Clear Communication Index Part B – 3 Items on Behavioral Recommendations (if applicable)**

Part B has 3 scored items. Part B may not apply to every material. If it doesn't apply, don't use it.

## Part B: Behavioral Recommendations

- Behavioral recommendation = Suggestion to start or stop a behavior because of consequences to a person or group's health or safety

- Examples:



Beginning a health behavior, such as eating fruits and vegetables



Stopping a harmful health behavior, such as smoking



Maintaining a positive health behavior, such as applying sunscreen with SPF 15 or higher before you go outside, every time



Following a health or safety practice, such as getting vaccinated or wearing a helmet when riding a bicycle or motorcycle

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[Define and give examples of behavioral recommendations.]

## Behavioral recommendations are always CTAs...

...but a call to action is **not** always a behavioral recommendation

- Can have more than one behavioral recommendation
- If no behavioral recommendations, don't use Part B.
  - You will not lose points.

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A behavioral recommendation is always a call to action.



### Part B: Behavioral Recommendations

Answer this question to determine if items 12-14 apply to the material.

Does the material include one or more behavioral recommendations for the primary audience?

- If **yes** – score items 12-14.

- If **no** – skip to Part C. [Go to Part C](#)

Questions	Score (Check one per question)
<b>12. Does the material include one or more behavioral recommendations for the primary audience?</b> <i>If no, STOP here and don't score Part B. (User Guide page 19)</i>	<input type="checkbox"/> Yes = 1
<b>13. Does the material explain why the behavioral recommendation(s) is important to the primary audience?</b> <i>If you offer only numbers to explain the importance of the behavioral recommendation with no other relevant information for the audience, answer no. (User Guide page 20)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>14. Does the behavioral recommendation(s) include specific directions about how to perform the behavior?</b> <i>This may include step-by-step directions or a simple description (for example: Look for cereal with 100% daily value of folic acid). If the material includes information about when and how to contact a medical provider or health official, answer yes. If the material mentions when and how often to perform a behavior, answer yes. (User Guide page 21)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0

Won't lose points if don't use Part B.

Same applies to Parts C and D.

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[Go through questions 12-14.]

## Group Practice

We're going to practice using Parts A and B of the Clear Communication Index by scoring a CDC webpage on how to wear cloth masks.

## How to Wear Masks

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wear-cloth-face-coverings.html>



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We're going to practice using Parts A and B of the Clear Communication Index by scoring a CDC webpage on how to wear cloth masks.

## Calculate the Score for the Material

**Step 1:** Add up the total points that the material earned (this is the numerator).

**Step 2:** Add up the total possible points that the material could have earned (this is the denominator).

**Step 3:** Divide the numerator by the denominator and multiply by 100 to get the total score.

$$\underline{\hspace{1cm}} / \underline{\hspace{1cm}} \times 100 = \underline{\hspace{1cm}}$$

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You calculate the material's score by adding up all the points your material earned, dividing it by the number of points available for the parts of the Index you used, and multiplying that by 100 to get a percent.

## How to Interpret Your Score

### If the score is 90% or above:

Excellent! Material addresses many items that enhance understanding and use.

### If the score is less than 90%:

- Note which items scored 0 points.
- Consult [User Guide](#) to revise and improve material.
- Apply Index again to rescore.
- Use Index as many times as needed to revise material to get 90% or above.

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Use the Index as many times as needed and keep revising the material until your material scores a 90 or above.

User Guide: <https://www.cdc.gov/ccindex/pdf/ClearCommUserGuide.pdf>

## **Clear Communication Index**

### **Part C – 3 Items on Numbers (if applicable)**

Part C has 3 question about numbers. Part C may not apply to all materials.

### Part C: Numbers

Answer this question to determine if items 15-17 apply to the material.

Does the material include one or more numbers related to the topic?

- If **yes** – score items 15-17.
- If **no** – skip to Part D. [Go to Part D](#)

Questions	Score (Check one per question)
<b>15. Does the material <u>always</u> present numbers the primary audience uses?</b> <i>Many audiences find numbers distracting or confusing. Make sure the numbers in the material are both familiar and necessary to support or explain the main message statement. If not, delete them. Whole numbers are used by most audiences. The types of numbers used will vary for each audience. (User Guide page 22)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>16. Does the material <u>always</u> explain what the numbers mean?</b> <i>For example, "The amount of meat recommended as part of a healthy meal is 3 to 4 ounces – it will look about the same size as a deck of cards." (User Guide page 23)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>17. Does the audience have to conduct mathematical calculations?</b> <i>Adding, subtracting, multiplying, and dividing involve calculations. Calculating a common denominator for the purposes of comparison is a mathematical calculation. Use the same denominator, even for absolute risk (example: 1 out of 3), throughout the material so that audiences don't have to calculate. (User Guide page 24).</i>	<input type="checkbox"/> Yes = 0 <input type="checkbox"/> No = 1
<b>NOTE: for this item, Yes is scored 0 and No is scored 1.</b>	

**C17 is only question on which a No scores a 1.**

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When we refer to numbers, we're talking about numbers relevant to the health message or the science behind the message.

## C15: Does the material always present numbers the primary audience uses?

- Express numbers in common terms.
- Delete unnecessary numbers.
- Use whole numbers and round numbers instead of decimals and fractions.
- Before:  
**81%** of children ages 6 months to 6 years watch TV or videos for **1.96** hours a day.
- After:  
**8 out of 10** children ages 6 months to 6 years watch TV or videos for **about 2 hours a day**.

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You should not only use numbers that are familiar to your audience, but you should use familiar units too. In the United States, that could mean representing degrees in Fahrenheit rather than Celsius.

If the numbers don't support or explain the main message, delete them.



## C16: Does the material always explain what the numbers mean?

- Example:

About 1 in 8 women in the United States will get breast cancer in her lifetime. That's a very high number of women. In fact, after skin cancer, breast cancer is the most common type of cancer in women.

- Example:

Sending or reading a text takes your eyes off the road for at least five seconds. At 55 miles per hour, that is like driving the length of an entire football field with your eyes closed.

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Examples of explaining what the numbers mean. First example explains that 1 in 8 is a high number. Second example helps reader picture how fast you can go in 5 seconds while driving 55 miles per hour.

## C17: Does the audience have to conduct mathematical calculations?

- Calculations distract from main message and recommendations
- Most people intimidated by formulas
- Most people won't take time to do calculation:
  - If they do, they can make mistakes.
- If must use fractions, probabilities, or ratios, keep denominators same.



Image by [Peggy und Marco Lachmann-Anke](#) from Pixabay

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Most people:

- Are intimidated by formulas
- Won't take the time to do the calculations
  - If they do calculate, they can make errors
- If have to use fractions, probabilities, or ratios keep the denominators the same.
- Reminder: this is the only question on the Index on which a No scores a 1 and a Yes scores a 0.

## C17: Keep Denominators the Same

- **Before:** Almost 4 in 5 adults over the age of 55 in the United States have at least one chronic condition, and almost 1 in 2 have at least three chronic conditions.  $[4/5, 1/2]$



- **After:** Almost 8 in 10 adults over the age of 55 in the United States have at least one chronic condition. Almost 5 in 10 have at least three chronic conditions.  $[8/10, 5/10]$

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The Before example uses different denominators, making it difficult for some readers to know which is larger, four fifths or one half.

The revision uses the same denominator for both fractions, making it easier for the reader to know which is larger.

## **Clear Communication Index**

### **Part D – 3 Items on Risk (if applicable)**

Part D has 3 questions on risk. It may not apply to all materials.

## Risk

- Definition: Probability that an event will occur and affect a person within a specific time or age span.

- Threat or harm to an individual or group of people

**Example:** Drinking contaminated water is a risk to human health.

- Outcome of a threat or harm

**Example:** Many people don't know they're at risk for heart disease even though heart disease is the leading cause of death.

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According to the Public Health Foundation's epidemiology glossary, "risk" is the probability that an event will occur and affect a person within a specific time or age span.

However, CDC materials often use "risk" in several different ways.

Risk can refer to the

- threat or harm to an individual or group of people (example: Drinking contaminated water is a risk to human health.)
- outcome of a threat or harm (example: Many people don't know they're at risk for heart disease even though heart disease is the leading cause of death.)

## Risk

- Likelihood that a threat or harm will or won't happen

**Example:** Car seat use reduces the risk for injury in a crash by 70%-80% for children, when compared with seat belt use alone.

- Risk factors, i.e., factors that make threat or harm more likely

**Example:** Cigarette smoking is a risk factor for lung cancer.

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Risk can refer to the

- likelihood that a threat or harm will or won't happen (example: Car seat use reduces the risk for injury in a crash by 70%-80% for children, when compared with seat belt use alone.)
- factors that make threat or harm more likely, i.e., risk factors (example: Cigarette smoking is a risk factor for lung cancer.)

#### Part D: Risk

Answer this question to determine if items 18-20 apply to the material.

Does the material present information, including numbers, about risk?

- If **yes** – score items 18-20.
- Items 19 and 20 have a “not applicable” (NA) option.
- If **no** – skip to Calculate the Score. [Go to Calculate](#)

Questions	Score (Check One per Question)
<b>18. Does the material explain the nature of the risk?</b> <i>If the material states the threat or harm and how and why people may be affected, answer yes. If the material has only the threat or harm but no explanation, answer no. For example, if the material states there are 1,000 new cases of a contagious disease in Springfield, does it also state that people in Springfield may be more likely to get the disease, why they may be more likely, and how serious the threat of the disease is? (User Guide page 26)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0
<b>19. Does the material address both the risks and benefits of the recommended behaviors?</b> <i>This includes actual risks and benefits and those perceived by your audience. If the material addresses only risks or only benefits, answer no. If no behavioral recommendation is presented, answer not applicable (NA). (User Guide page 27)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0 <input type="checkbox"/> NA
<b>20. If the material uses numeric probability to describe risk, is the probability also explained with words or a visual?</b> <i>Examples of probability information in a risk message are numbers (such as 1 in 5 or 20%). If the material presents numeric risk and also uses text to explain the probability, answer yes. If the material presents numeric risk and also uses a visual to explain the probability, answer yes. If the material only presents numeric risk, answer no. If the material does not include this type of probability information, answer not applicable (NA). (User Guide page 28)</i>	<input type="checkbox"/> Yes = 1 <input type="checkbox"/> No = 0 <input type="checkbox"/> NA

Omit part D  
if the  
material  
does not  
talk about  
risk.

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When you get to section D, answer the unscored question at the top to see if Part D applies to your material. If it doesn't, don't user Part D.

Examples on  
next 2 slides  
come from this  
fact sheet

Source:

[https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2\\_508tagged.pdf](https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2_508tagged.pdf)

**HAVING HEALTHY BABIES**  
**ONE AT A TIME**

*Why are we worried about twin pregnancies?*


We know that you are ready to start or add to your family. You may be concerned about your chances of having a baby using *in vitro* fertilization (IVF) or how much cycles of IVF cost. These concerns are common and may lead you to think about transferring more than one embryo during your IVF procedure. However, transferring more than one embryo increases your chances of having twins or more. **Twin pregnancy is risky for baby and mother**, whether or not IVF is used. Some of these risks include:


- **Almost 3 out of 5** twin babies are born **preterm**, or at less than 37 weeks of pregnancy. Twin babies are nearly 6 times as likely to be born preterm as single babies.
- **About 1 out of 4** twin babies are admitted to the **neonatal intensive care unit (NICU)**. Twin babies are more than 5 times as likely to be admitted to the NICU as single babies.
- **About 7 out of 1,000** twin babies have **cerebral palsy**. Twin babies are more than 4 times as likely to have cerebral palsy as single babies.
- Twin babies are more likely to be **stillborn**, experience **neonatal death**, have **birth defects** of the brain, heart, face, limbs, muscles, or digestive system, and have **autism** than single babies.
- **Almost 1 out of 10** women carrying twins gets pregnancy-related **high blood pressure**. Women carrying twins are twice as likely to get pregnancy-related high blood pressure as women carrying single babies.
- **Almost 1 out of 20** women carrying twins gets **gestational diabetes**. Women carrying twins are 1.5 times as likely to get gestational diabetes as women carrying single babies.

**The best way to reduce the chance of twins from IVF is to reduce the number of embryos transferred.**

Research shows that, for some women, transferring one fresh embryo followed by one frozen embryo, if a second transfer is needed, offers the best chance of having a baby without increasing the chance for twins.

See the other side for details.

 U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention



I show this slide merely to orient you to the next two slides. This is a CDC fact sheet on in vitro fertilization, IVF.



## D18: Nature of the risk? Threat/harm + how/why

Threat: twin pregnancy due to transferring more than 1 embryo during IVF

How/why people affected: stillborn, birth defects, etc. High blood pressure for pregnant woman.

We know that you are ready to start or add to your family. You may be concerned about your chances of having a baby using *in vitro* fertilization (IVF) or how much cycles of IVF cost. These concerns are common and may lead you to think about transferring more than one embryo during your IVF procedure. However, transferring more than one embryo increases your chances of having twins or more. Twin pregnancy is risky for baby and mother. whether or not IVF is used. Some of these risks include:

- Twin babies are more likely to be **stillborn**, experience **neonatal death**, have **birth defects** of the brain, heart, face, limbs, muscles, or digestive system, and have **autism** than single babies.
- Almost **1 out of 10** women carrying twins gets pregnancy-related **high blood pressure**. Women carrying twins are twice as likely to get pregnancy-related high blood pressure as women carrying single babies.

The best way to reduce the chance of twins from IVF is to reduce the number of embryos transferred.

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On this fact sheet, the threat is having a twin pregnancy due to transferring more than one embryo during IVF, as show by the words underlined in red.

This material also answers how people are affected by the risk, a twin pregnancy. As shown in the bottom blue box, a pregnant woman is at increased risk of developing high blood pressure. The babies are at increased risk of being stillborn, having birth defects, and experiencing other issues.

Source: [https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2\\_508tagged.pdf](https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2_508tagged.pdf)

## D19: Actual & perceived risks; benefits of recommended behavior

Recommendation: Decrease  
number of transferred embryos  
Benefit: Reduce chance of twins

Perceived risk of  
recommended behavior: Cost  
of another IVF cycle if embryo  
doesn't implant

We know that you are ready to start or add to your family. You may be concerned about your chances of having a baby using *in vitro* fertilization (IVF) or how much cycles of IVF cost. These concerns are common and may lead you to think about transferring more than one embryo during your IVF procedure. However, transferring more than one embryo increases your chances of having twins or more. **Twin pregnancy is risky for baby and mother**, whether or not IVF is used. Some of these risks include:

● Twin babies are more likely to be **stillborn**, experience **neonatal death**, have **birth defects** of the brain, heart, face, limbs, muscles, or digestive system, and have **autism** than single babies.

● Almost **1 out of 10** women carrying twins gets pregnancy-related **high blood pressure**. Women carrying twins are twice as likely to get pregnancy-related high blood pressure as women carrying single babies.

**The best way to reduce the chance of twins from IVF is to reduce the number of embryos transferred.**

Source: [https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2\\_508tagged.pdf](https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2_508tagged.pdf)

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Used color-coding: blue to draw your attention to the recommended behavior—reduce the number of embryos transferred—and its actual benefit—reduce the chance of a twin pregnancy—and red to draw your attention to the perceived risks, which is the time and expense associated with another cycle of IVF if that one transferred embryo doesn't implant in the uterine lining.

When we acknowledge the risks, whether perceived or actual, we build trust with the audience.

Source: [https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2\\_508tagged.pdf](https://www.cdc.gov/art/pdf/patient-resources/Having-Healthy-Babies-handout-2_508tagged.pdf)

## D19: Another Example of Benefits *and* Risks of Recommendation

### Benefit of Screening

The benefit of screening is finding cancer early, when it's easier to treat.

### Risks of Screening

Harms can include **false positive test results**, when a doctor sees something that looks like cancer but is not. This can lead to more tests, which can be expensive, invasive, time-consuming, and may cause anxiety.

Tests also can lead to **overdiagnosis**, when doctors find a cancer that would not have gone on to cause symptoms or problems, or even may go away on its own. Treatment of these cancers is called **overtreatment**. Overtreatment can include treatments recommended for breast cancer, such as surgery or radiation therapy. These can cause unnecessary and unwanted [side effects](#). Other potential harms from breast cancer screening include pain during the procedure and radiation exposure from the mammogram test itself. While the amount of radiation in a mammogram is small, there may be risks with having repeated X-rays.

Mammograms may also miss some cancers, called **false negative test results**, which may delay finding a cancer and getting treatment.

Source: [https://www.cdc.gov/cancer/breast/basic\\_info/screening.htm](https://www.cdc.gov/cancer/breast/basic_info/screening.htm)

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This is another example showing benefits and risks of a recommendation. In this case, these are not perceived risks but actual risks. This one talks about the benefit and risks of mammograms.

Now let's look at some ways to address item 20.

## **D20: If the material uses numeric probability to describe risk, is the probability also explained with words or a visual?**

- No: Cigarette smoking is the number one risk factor for lung cancer. In the United States, cigarette smoking is linked to about 80% to 90% of lung cancer deaths.
- Yes: Cigarette smoking is the number one risk factor for lung cancer. In the United States, cigarette smoking is linked to about 80% to 90% of lung cancer deaths. That means that for every 10 deaths from lung cancer, 8 to 9 are linked to cigarette smoking. People who smoke cigarettes are 15 to 30 times more likely to get lung cancer or die from lung cancer than people who do not smoke.

Source: [https://www.cdc.gov/cancer/lung/basic\\_info/risk\\_factors.htm](https://www.cdc.gov/cancer/lung/basic_info/risk_factors.htm)

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Risk statements that solely rely on numbers may be difficult for audiences to understand, so use words or visuals to explain them. Here we used words.

**D20: If the material uses numeric probability to describe risk, is the probability also explained with words or a visual?**

- No: About 1 in 8 U.S. women will develop invasive breast cancer over the course of her lifetime.
- Yes: About 1 in 8 U.S. women will develop invasive breast cancer over the course of her lifetime.



1 out of 8 women

Image source: United Cancer Support Foundation, <https://unitedcsf.org/breast-cancer-statistics-in-united-states/1-out-of-8-women/>

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Here we use a visual to--an icon array—to show what 1 out of 8 looks like.

## SCORING

Let's look at how to calculate your score.

## Calculate the Score for the Material

**Step 1:** Add up the total points that the material earned (this is the numerator).

**Step 2:** Add up the total possible points that the material could have earned (this is the denominator).

**Step 3:** Divide the numerator by the denominator and multiply by 100 to get the total score.

$$\underline{\hspace{1cm}} / \underline{\hspace{1cm}} \times 100 = \underline{\hspace{1cm}}$$

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You calculate the material's score by adding up all the points your material earned, dividing it by the number of points available for the parts of the Index you used, and multiplying that by 100 to get a percent.

## Scoring Example (12/16) x 100 = 75%

Part	Total Points Earned	Total Points Available
A: Core. No for A4 caption, A6 active voice, and A11	8	11
B: Behavioral Recommendations. Assume Part B didn't apply. Material <b>doesn't</b> lose points for not using it.	0	0
C: Numbers. Didn't explain what numbers mean, so answered No for C16	2	3
D: Risk. Since Part B didn't apply, D19 is N/A. Material <b>doesn't</b> lose points for an N/A response.	2	2
Total	12	16

Let's say you only got 8 points on Part A because you didn't have a caption on your image, you didn't use active voice in your main message, and you didn't explain what authoritative sources don't know about the topic, so you had to answer No on A4, A6, and A11. Let's say you didn't use part B because your material didn't have any behavioral recommendations. On Part C, you answered no for question 16 because the material didn't explain what the numbers meant. On Part D, you answered N/A on question 19, which asks about the benefits and risks of the recommended behaviors, because the material didn't include any recommended behaviors.

Total points earned = 12. Total points available = 16. Score is 12 divided by 16 times 100. Score is 75%. We consider 90% or above to be excellent.

With a few quick fixes, this material can score over 90%. [NEXT SLIDE]



## Scoring Example $(15/16) \times 100 = 93.75\%$

Part	Total Points Earned	Total Points Available
A: Core. Assume A11 is No, so it gets a zero.	10	11
B: Behavioral Recommendations. Assume Part B didn't apply. Material <b>doesn't</b> lose points for not using it.	0	0
C: Numbers.	3	3
D: Risk. Since Part B didn't apply, D19 is N/A. Material <b>doesn't</b> lose points for an N/A response.	2	2
Total	15	16

Go back to the questions on which the material scored zero. A few easy fixes to score above 90:

- Add relevant caption to image
- Use active voice in main message and CTA.
- Can't think of what authoritative sources don't know, so that stays a zero.
- Explain what numbers mean.

New score would be  $(15/16) \times 100 = 93.75\%$

## How to Interpret Your Score

### If the score is 90% or above:

Excellent! Material addresses many items that enhance understanding and use.

### If the score is less than 90%:

- Note which items scored 0 points.
- Consult [User Guide](#) to revise and improve material.
- Apply Index again to rescore.
- Use Index as many times as needed to revise material to get 90% or above.

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Use the Index as many times as needed and keep revising the material until your material scores a 90 or above.

User Guide: <https://www.cdc.gov/ccindex/pdf/ClearCommUserGuide.pdf>

## More CDC Resources

We have other health literacy and clear communication tools for you.

## More Helpful CDC Websites and Resources

- National Center for Environmental Health/Agency for Toxic Substances and Disease Registry's Environmental Health Thesaurus

<https://www.cdc.gov/nceh/clearwriting/thesaurus/index.html>

- CDC Health Literacy website:

<https://www.cdc.gov/healthliteracy/>



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update](#)

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CDC's National Center for Environmental Health/Agency for Toxic Substances and Disease Registry is the center within CDC responsible for investigating the relationship between environmental factors and health.

## Free, Online Health Literacy Courses

- Health Literacy for Public Health Professionals\*
- Fundamentals of Communicating Health Risks
- Effective Communication for Healthcare Teams: Addressing Health Literacy, Limited English Proficiency, and Cultural Differences

\* This course is undergoing an update. We are keeping the older version active while we work on the update.

Source: <https://www.cdc.gov/healthliteracy/gettraining.html>

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<https://www.cdc.gov/healthliteracy/gettraining.html>

Some have free continuing education credit.

## **CDC-branded COVID-19 Materials for Older Adults**

Since many of you in today's audience work with older adults, I wanted to let you know that CDC has COVID-19 resources that were specifically developed for this population.

## COVID-19 Resources for Older Adults

- [Older Adults and COVID-19 | CDC](#)
- [What You Can Do If You Are at Higher Risk of Severe Illness from COVID-19 \(cdc.gov\)](#)
- [Toolkit for Older Adults & People at Higher Risk | CDC](#)



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Older Adults: At greater risk of requiring hospitalization or dying if diagnosed with COVID-19

<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html>

What You Can Do if You Are at Higher Risk of Severe Illness from COVID-19

<https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID19-What-You-Can-Do-High-Risk.pdf>

Toolkit for Older Adults & People at Higher Risk

<https://www.cdc.gov/coronavirus/2019-ncov/communication/toolkits/older-adults-and-people-at-higher-risk.html>

Contact:  
[healthliteracy@cdc.gov](mailto:healthliteracy@cdc.gov)  
Thank you.

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



Thank you. I'm happy to take questions. If you need to reach me after today's session, my email address is on this slide.