

The Science of Communicating Clearly

[Announcer] This program is presented by the Centers for Disease Control and Prevention.

[Intro] Stuck? Wish you knew more? Well, listen up. The information landscape is changing rapidly and the communicators of today want the latest and greatest insights for action at their fingertips. Listen Up! is a podcast series brought to you by the CDC Office of Communications. In this series we highlight hot topics with thought leaders, innovators, practitioners, and more. So, listen up and lean in as we share information to help you grow your knowledge base and improve your practice. And don't forget to tell your colleagues about us.

[Betsy Mitchell] Protecting health is at the heart of our public health mission. People's well-being, even their very lives may depend on our ability to communicate about science and health recommendations clearly. And when communicating to the public ---we want people to understand our information --- preferably the first time they read or hear what we have to say. Joining me for an important conversation about clear communication is Dr. Michelle Hutchinson, former health literacy lead in the Office of Communications' Division of Communication Science and Services here at CDC. We're also joined by Lynn Sokler, communications advisor in CDC's Division of Communication Science and Services and communications lead for CDC *Vital Signs*. And last, Dr. Eric Pevzner, captain in the U.S. Public Health Service and chief of CDC's Epidemiology and Laboratory Workforce Branch and Epidemic Intelligence Service, or EIS. All three of my guests have helped to develop a course on clear communication for scientists, communicators, and policy professionals--- that is now available outside of CDC. And we'll talk more about that later. Michelle, welcome. I'll start with you. What do the data tell us about the state of health literacy in our country? And why does that matter?

[Michelle Hutchinson] Thank you, Betsy. It's great to be here. Data from the U.S. Department of Education indicate that more than half of Americans age 16 to 65 struggle to perform tasks when reading text-based information. And that includes health-based tasks. But we need to think beyond text-based information since people communicate more and more via audio and video. In fact, studies show us that people with extreme low literacy prefer to get their information in video-based formats. Using clear language is actually required by law. In 2010, Congress passed the Plain Writing Act to promote clear government communication that the public can understand and use. Your question about the state of health literacy reminds me of a video from the American Medical Association. It featured several people describing their experiences of not being able to understand health information. One woman couldn't understand the consent form she needed to sign before surgery. She was too embarrassed to ask what the forms meant, so she signed everywhere they told her to. At a follow-up visit after surgery, she learned that she had had a hysterectomy. She didn't realize that she had given permission for that procedure.

[Betsy Mitchell] Ooh that's terrible.

[Michelle Hutchinson] Yes, yes it is. And from the data and from this woman's experience and the experiences of many people like her, we know that a lack of clarity in what we write or say can lead to severe consequences. Lack of clarity can also lead to distrust. And this can happen in clinical or public health institutions because patients and the public may think we're trying to deceive them when we use complex language.

[Betsy Mitchell] And we definitely don't want that perception. So Lynn, why has communicating scientific information to the public become so complex for public health professionals?

[Lynn Sokler] Well you know competition for audience attention is fierce today. Data tells us that people spend an average of just 26 seconds on content they choose to read on the web, and only 15 seconds deciding whether to stick or click when they land on a web page. So we have very little time to get our information across, and yet we know that people need that information to protect their lives, and safety, and the health of their families. So we have to keep our messages brief and to the point. As Michelle mentioned, communicating science and health information clearly to the public will go a long way towards strengthening our credibility as public health practitioners. And we know that credibility is trust. And our ability to protect people's health depends on whether the public trusts us. It's also important that we remember that we can't rely on the media to be our translators of our science to the public. Journalists may have difficulty understanding scientific or public health jargon because they aren't scientists either. They're generalists. And they have tight deadlines that don't allow them time to read long research papers. So we have to communicate clearly not only to reach the public, but to give the media the interpretation of our science so that they can accurately report it to the public. So to do this, we need to focus on five main principles of health communication. The first one is so important, it's putting our main message at the beginning of our content. That's the one thing you want your audience to remember if they can only remember one thing. And it can't be too long. It should only be about one to three short sentences.

[Betsy Mitchell] One to three short sentences. That's a good reminder.

[Lynn Sokler] Yeah. And when you think about how little time people spend reading content or viewing a web page, it makes a lot of sense. Put what's important for them to take away. The other four principles are *know your audience*, *keep your information simple*, *express empathy*, and *tell a story*. These are the best practices people can use in any situation, and we know that the more someone uses these, the more they become part of their everyday work -- even when you're writing emails.

[Betsy Mitchell] Even in emails. That's great to remember. Michelle, back to you. What would you add here?

[Michelle Hutchinson] Sure. Lynn mentioned that it's important to know your audience, so be very specific and keep that specific audience in mind as you develop your communication material. Saying that our audience is the public is too broad. We need to narrow that down. Are they parents? If so, what are the age of their children? Are they immigrants? If so, what country are they from and in what language do they prefer to receive their information? Are they business owners? If so, in what industry or field are their businesses? In addition, we need to ask ourselves, what does the audience already know about the health topic? When we communicate, we should answer the audience's questions. We need to fill the gaps in their knowledge. We also need to know the intended audience's attitudes toward and beliefs about the topic. What motivates the audience? By knowing the audience's attitudes, beliefs, values, and motivations, we can use words and phrases that will resonate with that audience. Using this concept will help us do a better job of explaining how the intended audience can minimize their risks from a health or safety threat. Lynn also mentioned that we should keep our information simple, so use familiar words that the audience understands. Research shows that even highly educated people prefer simple language. I don't think I've ever heard anyone complain that something was too easy to understand. Another principle Lynn mentioned is to communicate with empathy. When we're empathetic, we're actively considering and recognizing how someone feels and perceives a situation. There's a saying you may have heard. It goes, "People don't care how much you know until they know how much you care." And I believe that saying is true. Especially when we're communicating with non-scientific or non-academic audiences.

[Betsy Mitchell] Thank you. Important principles to consider. Eric, over to you. From the perspective of the work that you lead with EIS officers and other scientists, why is storytelling a skill that you teach?

[Eric Pevzner] Well, building on Lynn and Michelle and what Michelle just finished talking about empathy, stories are a great way to show and to generate empathy. And we know that based on the science of adult learning and communication, that stories are a highly effective strategy for sharing our messages. So, we advise our fellows and our staff to use stories to help people remember our key messages. Former CDC director, Dr. Bill Foege, often said, you know, “We should always remember that there are faces and lives behind the graphs and numbers.” So a story can personalize your message and make it more relevant for the audience. And we know that stories are up to 22 times more memorable than facts or figures alone. At a recent EIS conference, Dr. Sandro Galea, the dean of the Boston University School of Public Health, combined science with storytelling to grab the attention of the audience and make his points more memorable. What he did was he told the story about the limitations of focusing on individual level behavior change and the benefits on focusing on social determinants of health. Now he could have done this typically with lots of charts and figures, but instead, he told a story. And his story was about his pet goldfish. He talked about how much he cared for his goldfish, but he was very busy and didn't have as much time as he would like to spend with his fish. So what he did was he told his goldfish everything the fish needed to do to be healthy. So he'd tell his fish to swim around his bowl a certain number of times in one direction, and then later in the other direction in order to get exercise. Then he tells goldfish that when it's time for feedings to avoid overeating and eat little bits at a time, and he went on to give the fish other important health tips. Then one day, Dr. Galea came home to find his pet goldfish dead. But he thought, but how could that be? And then he remembered and told the audience he'd forgotten to change the water in the bowl. So, he was giving this message and really emphasizing the importance of other influences of health beyond what we as individuals, or in this case, a goldfish can control. So in his example, the fish died because of dirty water. Now the health of the fish was also likely influenced by being in a small bowl and not having sufficient space to swim, to exercise, plants for increased oxygen levels and filtering the water, and other fish for companionship and a range of other factors that are beyond the control of the fish. So Dr. Galea was able to make a compelling point about moving beyond individual level factors that influence behavior and the importance of considering higher level influences like, the environment, community, and interpersonal factors that influence population health. Now he could have started his presentation with lots of data, but his point was more compelling and memorable when he incorporated his key data points in a story about his fish.

[Betsy Mitchell] Indeed, great example. It must be really helpful when scientists see other scientists incorporating stories that bring data to life in such an engaging way. So expanding there, how do you teach your students to become effective storytellers?

[Eric Pevzner] So we're integrating training on scientific communication and storytelling with other core elements of our curriculum. For example, all of our EIS officers have to do an evaluation of our surveillance system, and this used to be a completely independent part of our curriculum. But now EIS officers submit their presentation before the week of training and their presentations on their surveillance evaluation. But then over three days, they get extensive communication training and each day, they're practicing and applying what they're learning and then given time to revise their presentation. So at the end of the week, their officers are giving a revised surveillance evaluation presentation that shows how they've incorporated their training on scientific communication.

[Betsy Mitchell] I love that iterating, that's terrific.

[Eric Pevzner] Exactly. It's an iterative process, so it's learn and apply. And a key component of their communication training is storytelling, and we bring in an EIS alum, Dr. Seema Yasmin. After EIS, Seema was a science and medicine reporter. She emphasizes that scientists tend to speak about science the way they were trained to conduct and write about science. So scientists are trained to start with the

background information, mention the problem, their question or hypothesis, and then do their methods and then get to the results and discussion. So Seema and other experts in storytelling recommend taking a different approach by using an inverted structure to present data. So, start with your conclusions that just like Lynn was saying, get that main message or your bottom line right up front, then quickly explain about the importance of your conclusions and then get into what Seema refers to as the adventure of discovery. Talk about why you focused on the problem and why the problem was as Seema says sticky, and might have defeated you previously. And what is the price the world has been paying as a consequence? She encourages us to talk about failure, because failure makes for compelling and relatable stories. Tell the audience what went wrong and discuss your results. Now, by incorporating compelling narratives, our officers are better able to grab the audience's attention and help them remember key messages and recommendations from their investigations and research.

[Betsy Mitchell] That's great Eric. Lynn, could you recap the five communication principles again for our listeners?

[Lynn Sokler] You bet. Put our main message at the beginning of our content, know your audience, keep your information simple, express empathy, and tell a story.

[Betsy Mitchell] That's great, Lynn. Thank you. And for our listeners, if you'd like to learn more—CDC's Office of Communications has developed and launched a course called “Communicating Science Clearly,” which helps people learn more about these clear communication principles and how to apply them. The training is now available to audiences outside of CDC. So Michelle, where can people go to find the training?

[Michelle Hutchinson] They can find it on the CDC TRAIN website at train.org/cdctrain. They can search the course catalog tab for “Communicating Science Clearly.” If listeners need more information, they can send an email to healthliteracy@cdc.gov. CDC has a strong commitment to clear communication, and we're really excited for audiences outside the agency to have access to this course.

[Betsy Mitchell] That's terrific, and we'll be sure to put the course link on our resources page as well. Thank you again colleagues, great conversation today.

[Outro] Findings and conclusions in this discussion do not necessarily represent the official position of the Centers for Disease Control and Prevention. We hope you enjoyed this podcast. You can find past episodes of Listen Up! archived in the CDC Public Health Media Library and at cdc.gov/listenuppodcast. CDC protecting health, improving lives.

[Announcer] For the most accurate health information visit cdc.gov or call 1-800 CDC Info.