



What makes successful educational materials

Insights from behavioral and social sciences

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ME/CFS Partners meeting

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Objectives

- Describe the communication science and behavioral science that underpin CDC's approach to developing educational materials.
- Describe the steps that CDC communicators and educators take to ensure materials are effective.
- Introduce CDC's Clear Communication Index – a science-based tool that you can use to develop more effective educational materials.

Key decisions educators and communicators make every day

- Who is my primary audience?
- Why do I need to educate/communicate with them?
- What do I want/need to tell them?
- What is the best manner to tell them?
- What is the best medium to tell them?
- How will I reach my primary audience?
- How will I get feedback?

Communication and behavioral science can help you navigate these decisions



- Stay focused on destination
- Prioritize audience needs
- Minimize detours or distractions

Commonly Used Communication Theories or Models

- McGuire's Hierarchy of Communication Effects
- SMCR Model of Communication
- Consumer Information Processing
- Social Marketing Theory
- Uses and Gratification Theory
- Agenda Setting Theory
- Elaboration Likelihood Model
- Crisis and Emergency Risk Communication Model
- Network Theory (social networks)
- Extended Parallel Process Model (how attitudes are formed when fear appeals are used)
- Knowledge Gap Theory

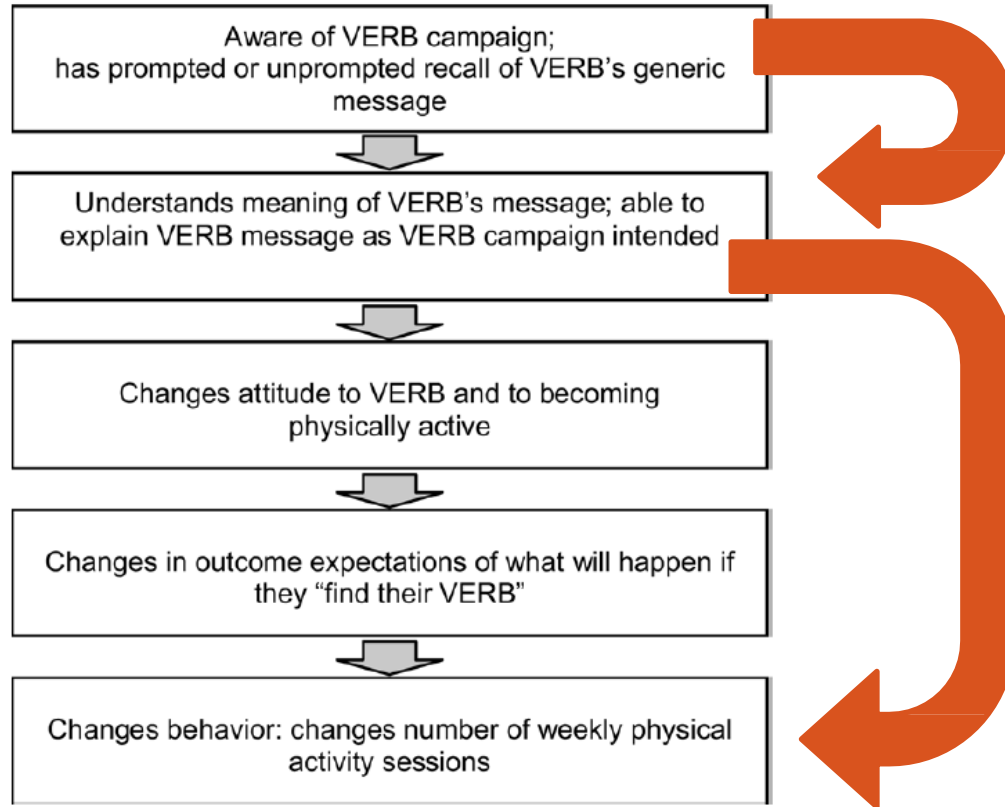
Commonly Used Health Behavior Theories or Models

- Stages of Change (Trans-theoretical Model)
- Health Belief Model
- Theory of Planned Behavior/Theory of Reasoned Action
- Social Cognitive Theory/Social Learning Theory
- COM-B Model
- Social Marketing Theory
- Diffusion of Innovation
- Precaution Adoption Process Model
- Integrated Behavioral Model
- Common Sense Model (Illness Representation Model)
- Transactional Model of Stress and Coping
- Community Organization
- PRECEDE-PROCEED
- Social Ecological Model
- Behavioral Ecological Model

McGuire's Hierarchy of Communication Effects

Outputs:	Inputs:	Source	Message	Channel	Receiver	Destination
1. Exposure						
2. Attending						
3. Liking						
4. Comprehending						
5. Acquiring skills						
6. Yielding						
7. Remembering						
8. Seeking information						
9. Deciding						
10. Behaving						
11. Reinforcing						
12. Consolidating						

McGuire's Hierarchy used in CDC's VERB campaign



Health Belief Model

- Perceived susceptibility.
- Perceived severity.
- Perceived benefits.
- Perceived barriers.
- Self-efficacy.
- Cues to action.

Health Belief Model used in rabies education




- **Perceived susceptibility.** I don't think I'll ever get infected with rabies.
- **Perceived severity.** If I am infected with rabies, I could die.
- **Perceived benefits.** If I wash the wound and get care right away, I can survive.
- **Perceived barriers.** It is easier to kill the dog than observe it for 14 days.
- **Self-efficacy.** I am confident I can protect myself from rabies if I'm bitten by a dog.



Health Belief Model: Cues to action



Pwoteje Tèt Ou, Pwoteje Fanmi Ou, epi Pwoteje Kominote Ou kont Maladi Laraj

Sa pou fè si yon chen mòde ou:

-  **1** Lave blesi a pandan 10 minit avèk savon ak dlo tiyo.
-  **2** Si yon chen mòde ou, kouri ale nan sant sante a.
-  **3** Sonje avèk kisa chen an sanble. Rele nimewo




 

Bèt ki pi Ansante, Moun ki pi Ansante, Ayiti pi Ansante.

Se nan pye Moun ki pi Ansante, Moun ki pi Ansante, Ayiti pi Ansante. Se nan pye Moun ki pi Ansante, Moun ki pi Ansante, Ayiti pi Ansante. Se nan pye Moun ki pi Ansante, Moun ki pi Ansante, Ayiti pi Ansante.

How CDC ensures that education and communication efforts are effective

The CDC Clear Communication Index




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Index Widget

The CDC Clear Communication Index (Index) is a research-based tool to help you develop and assess public communication materials.

- The Index has 4 introductory questions and 20 scored items drawn from scientific literature in communication and related disciplines.
- The items represent the most important characteristics that enhance and aid people's understanding of information.



[Begin >](#)

Everyday Words

[Everyday Words for Public Health Communication](#) [282KB, 44 pages] offers expert recommendations from CDC's Health Literacy Council and other agency communicators on how to reduce jargon and replace problematic terms in order to improve real comprehension.

Example Material

We've provided a few examples of the materials we tested with descriptions of what we changed.

- Healthcare-associated Infections
- National Violent Death Reporting System
- Thimerosal

[More >](#)

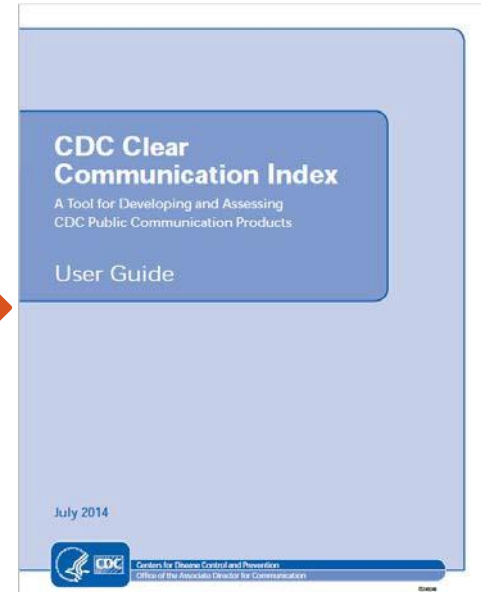
<https://www.cdc.gov/ccindex/>

Steps CDC takes to ensure that education and communication efforts are effective

1. Select an audience
2. State a clear communication objective
3. Engage your audience
4. Design with the audience in mind
5. Pre-test your material and revise based on feedback
6. Produce, place, and promote them

Clear Communication Index covers Steps 1–4:

1. Select an audience
2. State a clear communication objective
3. Engage your audience
4. Design with the audience in mind



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

How to get and keep your audience's attention

- Have a **main message** that is prominent and portrayed graphically or visually
- Include specific **calls to action** or make behavioral recommendations
- Use **language and numbers that your audience's uses**
- **Chunk and layer information** so your audience can easily find what they are looking for

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

Helping Your Child Manage Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)

Fact Sheet for Parents and Guardians

Myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) is a complex illness that can be challenging for parents and children. Following are some tips to help you in dealing with your child's illness.



Be an Advocate for Your Child

Take an active role in managing your child's illness and encourage him or her to do the same. This can allow you to make the best possible choices for his or her health.

- Learn as much as you can about ME/CFS and how it affects your child.
- Talk with your child's healthcare provider about your questions and concerns.
- Speak with school staff, such as teachers, guidance counselors, and school nurses, about concerns you have with your child in school.
- Work closely with teachers, counselors, and other school staff to develop an action plan and find resources to help your child succeed in school.
- Educate others involved in your child's life about ME/CFS, such as school staff, other family members, and your child's peers. When people know more about this illness, they may be better able to help and accommodate your child. This is particularly important at your child's school.

Be Familiar with School Resources

ME/CFS can affect an adolescent's or younger child's experience at school. Fatigue, pain, and concentration or memory problems can make it hard for a child to complete homework assignments. It may also be difficult for them to participate in the classroom or attend school on a regular basis. With some planning, teachers and parents can help students with ME/CFS to have a successful school experience.

National Center for Emerging and Zoonotic Infectious Diseases
Division of High-Consequence Pathogens and Pathology



<https://www.cdc.gov/me-cfs/pdfs/me-cfs-children-parents.pdf>

Helping Students Who Have Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)

Fact Sheet for Education Professionals



When teaching adolescents or younger children with ME/CFS, it can be helpful to understand more about the problems faced by these students. A key to helping students with ME/CFS is to work as a team with their teachers, parents, administrators, other education professionals, and healthcare professionals. This team approach can provide flexibility with educational plans and school resources that are customized to target and reflect the student's needs.

ME/CFS affects each student differently. Each child may experience different symptoms and the duration of their symptoms may differ as well. Symptoms can fluctuate from day to day and week to week, affecting a young person's ability to attend school regularly and perform consistently.

ME/CFS can affect children and adolescents in many ways, including their:

- Attendance
- Ability to participate both inside and outside of the classroom
- Relationships with peers
- Ability to complete assignments
- Overall school success

Understand How ME/CFS Affects Students Inside and Outside the Classroom

Teachers and administrators who are not familiar with ME/CFS could mistake a child's illness and fatigue for laziness or avoidance of social interaction. Below are a few examples of how ME/CFS can affect students:

- School performance or attendance can be affected by a student's ME/CFS symptoms, such as memory or concentration problems, unrefreshing sleep, and headaches.
- Adolescents and younger children with ME/CFS can experience problems when trying to do several things at once—for example, doing their homework and keeping track of time.



New audience means

New main message and photo

New calls to action

New words

Managing ME/CFS in Children and Adolescents

Fact Sheet for Healthcare Professionals



Myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) in adolescents and younger children can be challenging to diagnose and manage. Adolescents and younger children with ME/CFS can have a wide range of symptoms. Due to the varying severity and duration of symptoms, periodic reassessment of ME/CFS symptoms and illness course are imperative. This approach can monitor the variation of symptoms and also identify other new health problems should they occur.

Help Patients Reduce Symptoms Affecting their Quality of Life

The goal of managing ME/CFS in adolescents and younger children is to reduce symptoms that limit daily activity.

- Memory and concentration problems are two commonly reported symptoms of ME/CFS in this population. An adolescent or younger child with concentration problems often has a hard time in school and with afterschool activities, such as sports or school clubs.
- Sleep problems can contribute to poor school performance or school attendance. Encourage parents to provide students with tools such as organizers and schedulers that may be helpful in managing the effects of the illness.

Healthcare providers should use extra caution when prescribing medicines for children with ME/CFS. Patients with ME/CFS might be more likely to have adverse reactions to standard doses. Starting medications at the smallest possible doses and for the shortest possible time should be considered.

Understand How ME/CFS Affects a Student's School Experience

ME/CFS can affect a student's school experience in several ways, such as attendance, participation inside and outside the classroom, completion of assignments, relationships with peers, and overall school success. Symptoms can fluctuate day to day and week to week, affecting a young person's ability to attend school regularly and perform consistently.

In extreme cases of the illness, children may be unable to leave the house because their symptoms are so severe. This could isolate them from their friends or peers, as they miss out on opportunities to socialize. For example, children with ME/CFS say they particularly miss eating lunch with friends and participating in after-school activities.

Adolescents and younger children with ME/CFS may experience problems with attention, response speed, information processing speed, and delayed recall of verbal and visual information. For instance, it may be challenging for adolescents to take notes and listen to their teacher at the same time.

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New audience means

New main message and photo

New calls to action

New words

5. Pre-test your material with your audience and revise based on feedback

This step can be done multiple times, if needed.

- Interviewing
- Observation
- Contextual Inquiry
- Walk-a-mile

“What people say and what people do and what they say they do are entirely different things.”

--Margaret Mead, Anthropologist

6. Produce, place, and promote your material

“If you build it, they will come!” only happens in the movies 😊

- Use audience insights to place your materials where your audience will most likely encounter it.
- Promote your material with the audience and with people or organizations whom your audience trusts and respects.

Recap: The steps that make education and communication effective

1. Select an audience
2. State a clear purpose
3. Engage your audience
4. Design with the audience in mind
5. Pre-test your material and revise based on feedback
6. Produce, place, and promote them

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