Region I Title X Family Planning Training Center

Clear Communication: A Family Planning Provider's Guide for Developing Easy-to-Read Materials

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Table of Contents

I. Introduction to Plain Language

II. Tips and Tools
- ♦ Assessing Pre-Existing Materials
- ♦ SMOG Readability Formula
- ♦ Writing and Formatting Quick Tips

III. Pretesting Materials You Have Created
- ♦ Conducting Focus Groups
- ♦ A Note on Informed Consent

IV. Examples
- ♦ Before and After
  - ◊ Birth Control Pills Pamphlet
  - ◊ Doxycycline Prescription Information
  - ◊ Strep Throat Care Sheet
- ♦ A Few Well-Written Plain Language Materials
  - ◊ Prescription Information: How to Take Your Invirase
  - ◊ Brochure: Emergency Contraception
  - ◊ Brochure: Choosing a Birth Control Method

V. Resources
- ♦ Glossary: Commonly Used Medical Terms
- ♦ AMA Guide: Health Literacy—A Manual for Clinicians
- ♦ Partners for Action: Making Your Healthcare Facility Literacy-Friendly
- ♦ Where to Buy or Find Easy-to-Read Educational Materials for Clients
- ♦ Listing of Online Resources

Introduction to Plain Language

What is Plain Language?

Plain Language Medical Information is text and speech characterized by easy words and short sentences to accommodate clients who are poor readers or have trouble understanding hard words.

The goal of plain language information is to provide clear, simple, and streamlined communications. This concept is especially valuable in the jargon-filled world of medical information, where it is crucial that communication between healthcare providers and their clients is very clear. It is important to use plain language with all clients, not just those with limited literacy skills.

Why is Plain Language important to me and my clients?

Most adults have limited time and medical background. Many adults have limited literacy skills. Health care providers need to make sure their information comes across clearly to their clients. Plain language allows clients to easily understand forms and instructions for taking prescriptions, providing consent, preparing for visits or procedures, caring for a chronic condition, etc.

Plain language is extremely valuable to family planning. Think of how you explain proper use of contraceptives or how you communicate the importance of cancer screening; these are complex subjects that can confuse the most medically literate staff. As family planning providers, you must ensure that information is comprehended by all clients. It is not an easy task to use plain language to allow clients to understand their body, use contraceptives correctly, or explain transmission of sexually transmitted infections; we tend to fall back on “medical-speak” and jargon. However, with the help of this manual, we hope that you will incorporate some simple ideas to help make your communications clear and straightforward.

Why did we create this toolkit?

Reproductive health care providers in Region I recognized the need for plain language communication and easy-to-read materials. The Region I Title X Family Planning Training Center developed this toolkit in response to this request. Many organizations create their own informational materials, and we hope this toolkit will serve as a guide to help them do so more effectively.

Who is this toolkit designed for?

This toolkit was primarily designed for family planning staff who develop patient information and educational materials, be it prescription directions or basic clinic information. However, all staff who directly communicate with clients will find this information useful in their interactions.

In addition to the resources listed in this toolkit; further information is available on http://www.famplan.org/plainlang.htm

Assessing Pre-Existing Health Education Materials

The following assessment guide should be used when you are trying to determine whether to use an existing material or to develop one yourself. It is also a helpful tool to refer to as you develop your own materials.

Content

- Is the information accurate and up-to-date?
- Does content focus on the key, most necessary information? (And avoid extraneous info?)
- Have any important points been left out?
- Are concrete examples given to illustrate general ideas?
- Does the content take the audience's culture and circumstances into account?
- Does the material call on the reader to take some specific, appropriate action?

Organization

- Is there a clear core message, supported by a few (3-4) main points?
- Is the information presented in easy-to-understand "chunks" or sections?
- Are the main points presented in a logical order that will make sense to the audience?
- Are headers used to direct the reader to the main points?
- Is there a summary of key points?

Source Credibility

- Does the material's author/producer have credibility with the target audience?
- Does the spokesperson or other source shown in the material have credibility with the target audience?

Language and Tone

- Is everyday language used?
- Are action words and the "active voice" used?
- Is the tone friendly and conversational, with the reader treated as a partner?
- Does the material use short words and short sentences, without sounding choppy?
- Are unfamiliar terms, abbreviations and acronyms defined?
- If slang or figures of speech are used, does the target audience know their meaning?
- What reading level does readability testing show?
- Does material avoid preaching, condescending or blaming?
- Does material avoid use of fear tactics?

Cultural Competence

- Is the material written in the preferred language of the target audience?
- If translated, is translation accurate and well-done?
- Are demeaning labels or stereotypes avoided?
- Is the material appropriate for the audience's age and gender?
- Does the material show respect for the target audience's values, customs, beliefs and prior knowledge?
- Are people depicted representative of the target audience?

Design

- Do design elements (like headers, bullets, boxes) help draw attention to main points?
- Does the material have an accessible, open look with plenty of white space?
- Is the font (typeface) clear and clean, and large enough (12 point or larger)?
- Do visuals support the text and are they placed close to the text they relate to?
- Do visuals show the correct way to do something?
- Are confusing graphs, charts or statistics avoided?
- Is there good contrast between paper and ink?
- Is the material visually attractive?

Overall Impression

- What are the strengths of the material?
- What are the weaknesses of the material?
- Other comments?

Developed by JSI and World Education, Inc.

Introduction to SMOG Readability Formula

What is the SMOG Readability Formula?

SMOG stands for a Simple Measure of Gobbledygook; it is designed to assess the reading level of written materials. SMOG is an easy to interpret system, which expresses the result as a school grade level. It does this by assessing two aspects of text: word length and sentence length. The basic assumption that SMOG makes is that the longer a word or sentence is, the harder it is to read. The full formula is laid out in detail on the following page.

Are there other ways to test readability?

Yes, there are more than 40 different formulas that assess readability. This guide discusses SMOG because it is frequently used to assess the reading level of health communication, and in comparison to other formulas, it is fairly easy to use.

Why should I use a readability formula?

Readability formulas can help save you time. Before you test your materials with members of the target audience, you can get an estimate of the writing's understandability. If you get a grade level estimate above 8, you may want to try simplifying the language before you pretest the materials.

What other things should I know about SMOG?

It is important to remember that the grade level determined by completing the SMOG Readability Formula is an estimate. Most readability formulas have been shown to be accurate plus or minus 1.5 grade levels. Every formula will provide a slightly different answer, so it is important to have others review your materials. Also, keep in mind that readability formulas do not take into account layout, pictures, or organization, which is why it is still crucial to test your materials (see section 3 for more information on pre-testing). Readability formulas are a shortcut and should not be the only test you do. The best way to test the readability of materials is to try them out with real people.

SMOG Readability Formula

(a.k.a. Simple Measure of Gobbledygook)

1. Count 10 consecutive sentences near the beginning of the text to be assessed, 10 in the middle and 10 near the end. Count as a sentence any string of words ending with a period, question mark or exclamation point.

2. In the 30 selected sentences count every word of three or more syllables. Any string of letters or numbers beginning and ending with a space or punctuation mark should be counted if you can distinguish at least three syllables when you read it aloud in context. If a polysyllabic word is repeated, count each repetition.

3. Estimate the square root of the number of polysyllabic words counted. This is done by taking the square root of the nearest perfect square. For example, if the count is 95, the nearest perfect square is 100, which yields a square root of 10. If the count lies roughly between two perfect squares, choose the lower number. For instance, if the count is 110, take the square root of 100 rather than that of 121.

4. Add 3 to the approximate square root. This gives the SMOG Grade, which is the reading grade that a person must have reached if he or she is to understand fully the text assessed.

The general rule of thumb is to aim materials for a 6th grade reading level or lower.

$$\sqrt{total\ complex\ words \times \left(\frac{30}{total\ sentences}\right)} + 3$$

If this method seems too difficult to do by hand, don't worry! An online "SMOG calculator" can do the work for you. Just go to http://www.wordscount.info/hw/smog.jsp and cut and paste your text into the "calculator".

*Information on SMOG is taken from the original article in the *Journal of Reading* written by G. Harry McLaughlin in 1969. http://www.harrymclaughlin.com/SMOG_Readability_Formula_G._Harry_McLaughlin_(1969).pdf

The SMOG Readability Formula*

To calculate the SMOG (Simplified Measure of Gobbledygoop) reading grade level, begin with the entire written work that is being assessed, and follow these four steps:

1. Count off 10 consecutive sentences near the beginning, in the middle, and near the end of the text.
2. From this sample of 30 sentences, circle all of the words containing three or more syllables (polysyllabic), including repetitions of the same word, and total the number of words circled.
3. Estimate the square root of the total number of polysyllabic words counted. This is done by finding the nearest perfect square and taking its square root.
4. Finally, add a constant of three to the square root. This number gives the SMOG grade, or the reading grade level that a person must have reached if he or she is to fully understand the text being assessed.

A few additional guidelines will help to clarify these directions:

- A sentence is defined as a string of words punctuated with a period (.), an exclamation point (!), or a question mark (?).
- Hyphenated words are considered as one word.
- Numbers that are written out should also be considered, and if in numeric form in the text they should be pronounced to determine if they are polysyllabic.
- Proper nouns, if polysyllabic, should be counted, too.
- Abbreviations should be read as unabbreviated to determine if they are polysyllabic.

Not all pamphlets, fact sheets, or other printed materials contain 30 sentences. To test a text that has fewer than 30 sentences:

1. Count all of the polysyllabic words in the text.
2. Count the number of sentences.
3. Find the average number of polysyllabic words per sentence as follows:

$$\text{Average} = \frac{\text{Total \# of polysyllabic words}}{\text{Total \# of sentences}}$$

4. Multiply that average by the number of sentences short of 30.
5. Add that figure on to the total number of polysyllabic words.
6. Find the square root and add the constant of 3.

Perhaps the quickest way to administer the SMOG grading test is by using the SMOG conversion table. Simply count the number of polysyllabic words in your chain of 30 sentences and look up the approximate grad level on the chart (see page 3).

An example of how to use the SMOG Readability Formula and the SMOG Conversion Table is provided on the next page.

Example Using the SMOG Readability Formula:

SMOG
Page 2

In Controlling Cancer—You Make a Difference

The key is action. You can help protect yourself against cancer. Act promptly to:

Prevent some cancers through simple changes in lifestyle.

Find out about early detection tests in your home.

Gain peace of mind through regular medical checkups.

Cancers You Should Know About

Lung Cancer is the number one cancer among men, both in the number of new cases each year (79,000) and deaths (70,500). Rapidly increasing rates are due mainly to cigarette smoking. By not smoking, you can largely prevent lung cancer. The risk is reduced by smoking less, and by using lower tar and nicotine brands. But quitting altogether is by far the most effective safeguard. The American Cancer society offers Quit Smoking Clinics and self-help materials.

Colorectal Cancer is second in cancer deaths (25,100) and third in new cases (49,000). When it is found early, chances of cure are good. A regular general physical usually includes a digital examination of the rectum and a guaiac slide test of a stool specimen to check for invisible blood. Now there are also Do-It-Yourself Guaiac Slides for home use. Ask your doctor about them. After you reach the age of 40, your regular check-up may include a "Procto," in which the rectum and part of the colon are inspected through a hollow, lighted tube.

Prostate Cancer is second in the number of new cases each year (57,000), and third in deaths (20,600). It occurs mainly in men over 60. A regular rectal exam of the prostate by your doctor is the best protection.

A Check-Up Pays Off

Be sure to have a regular, general physical including an oral exam. It is your best guarantee of good health.

How Cancer Works

If we know something about how cancer works, we can act more effectively to protect ourselves against the disease. Here are the basics:

1. Cancer spreads; time counts—Cancer is uncontrolled growth of abnormal cells. It begins small and if unchecked, spreads. If detected in an early, local stage, the chances for cure are best.
2. Risk increases with age—This is not a reason to worry, but a signal to have more regular, thorough physical check-ups. Your doctor or clinic can advise you on what tests to get and how often they should be performed.
3. What you can do—don't smoke and you will sharply reduce you chances of getting lung cancer. Avoid too much sun, a major cause of skin cancer. Learn cancer's Seven Warning Signals, listed on the back of this leaflet, and see your doctor promptly if they persist. Pain is usually a late symptom of cancer; don't wait for it.

Know Cancer's Seven Warning Signals

1. Change in bowel or bladder habits.
2. A sore that does not heal.
3. Unusual bleeding or discharge.
4. Thickening or lump in breast or elsewhere
5. Indigestion or difficulty in swallowing
6. Obvious change in wart or mole
7. Nagging cough or hoarseness

If you have a warning signal, see your doctor.

Unproven Remedies

Beware of unproven cancer remedies. They may sound appealing, but they are usually worthless. Relying on them can delay good treatment until it is too late. Check with your doctor or the American Cancer Society.

More Information

For more information of any kind about cancer–free of cost–contact your local unit of the American Cancer Society

We have calculated the reading grade level for this example.

Compare your results to ours, and then check both with the SMOG conversion table:

Readability Test Calculations

Total Number of Polysyllabic Words	=38
Nearest Perfect Square	=36
Square Root	= 6
Constant	= 3
SMOG Reading Grade Level	= 9

SMOG Conversion Table**

Total Polysyllabic Word Counts	Approximate Grade Level
0-2	4
3-6	5
7-12	6
13-20	7
21-30	8
31-42	9
43-56	10
57-72	11
73-90	12
91-110	13
111-132	14
133-156	15
157-182	16
183-210	17
211-240	18

**Excerpted from "Making Health Communications Programs Work," US Department of Health and Human Services.*
***Developed by: Harold C. McGraw, Office of Educational Recearch Baltimore County Schools, Towson, Maryland.*

Document from: http://www.utexas.edu/vp/ecs/communications/SMOG.pdf

Writing in Plain Language—Quick Tips

The two golden rules of communicating in plain language are:

1. **Know your audience—who are you writing for? Take into consideration age, gender, ethnic background, education, etc.**
2. **Identify your main message and key points—and stick to it!**

Once you have mastered the golden rules, try out some of the following tips to make your materials more reader-friendly.

1. Put the most important information at the beginning.

The beginning is a place of honor and your reader will still be focused. Put your main message right up front.

2. Use short words and short sentences.

Try to keep sentences to 20 words or less. Instead of using semicolons and dashes, try breaking a long sentence into two or more shorter sentences.

3. Create short paragraphs or sections with one major idea in the first line.

Try to place your main message in the first sentence. Group similar ideas together and remove information that overlaps.

4. Use the active voice.

Avoid using the verb "to be" (is, was, were, will be). Instead, make your sentences come alive with action.

Pills should be taken at the same time each day. → Take pills at the same time each day.
See, you saved yourself two words!

John's appointment was rescheduled by the clinic. → The clinic rescheduled John's appointment.
Another two words!

5. Talk directly to the reader.

Women should take their birth control at the same time every day.

Vs.

Take your birth control at the same time every day.

6. Provide concrete examples.

If your stomach is upset, drink plenty of fluids.

Vs.

If your stomach is sick, drink lots of water or sports drinks. Try not to drink milk.

7. Use short, bulleted lists.

There are many birth control methods that we can offer you at today's visit, such as male and female condoms, the pill, the shot, and the patch.

Vs.

There are many birth control methods that we can offer you at today's visit, such as

- Male condoms
- Female condoms
- The pill
- The shot
- The patch

8. Use headers or sub-titles that group information.

Large blocks of text are hard to read and can be intimidating to low literacy clients. Headers break up these large blocks and help clients to find the information they are looking for. It also helps to keep your writing organized and logical. For example, if you were designing a brochure, rather than writing in continuous paragraphs (like reading a novel), try listing one or two paragraphs underneath a subheading. Another good tip is to use questions as subheadings, such as "Where can I find more information?" and "What is going to happen at today's visit?"

9. Eliminate unnecessary words.

I encourage you to practice safer sex and use a condom every single time you have sexual intercourse.

Vs.

Practice safer sex. Use a condom every time.

10. Don't use abbreviations.

For example, instead of saying "take your medicine at 8:00 am", try "take your medicine at 8:00 in the morning." Another instance would be to use "number 7" in place of "#7"; or using "teaspoon" rather than "tsp".

11. Be repetitive with your central message.

Repeating your main point at least once is a good practice. It helps get your message across because it will stick in the reader's memory.

12. Create a form of reader interaction.

This can be as simple a asking a question at the end of a section like "Have you thought about what to ask your nurse?" It could also take the form of a checklist, a fill-in-the-blank, or a trivia question. By doing this, the reader takes an active role and is more likely to recall the information later.

13. Use concrete examples to explain key concepts.

Take with food.

Vs.

When you take this medicine, be sure to eat a piece of bread or crackers at the same time.

14. When possible, pretest newly created materials with clients in the target audience.

See Section III of this guide for more information about focus groups and pretesting.

15. Make sure there is a lot of white space on your page.

This makes the task of reading feel less overwhelming and makes it easier for the eye to follow to the next line.

16. Use at least 12 point font in an easy-to-read typeface.

Such as:

Comic Sans MS
Georgia
Times New Roman
Arial
Veranda

17. Avoid *italics*.

Instead try bolding words or bulleting phrases to which you want to draw attention.

18. In general, do not use all capital letters.

Writing in capitals makes your reader feel that you are YELLING at them, and no one likes to be yelled at. All caps is also harder to read.

19. Use diagrams and pictures to explain the text.

When appropriate, use a picture that reflects your message. If you are developing material on healthy eating, include a picture of a well-portioned meal, or show ingredients that may be unfamiliar to the reader.

20. **Use pictures that are directly related to the content.**

If you are developing materials on healthy eating, it is not helpful to show flowers and butterflies.

21. **Don't use pictures with excess detail (only focus on getting the message across).**

People who have a difficult time reading are generally very good at picking up on clues shown in pictures. If you create a brochure on implantable birth control, you only need to show a woman's arm. If you show a detailed picture of the entire person, it can distract from the main focus.

22. Remember—reading and understanding are two different things.

Ask your clients to state back to you the information they read. This is one of the best ways to check that they have understood it.

Pretesting

It is important to pretest your materials before finalizing and distributing them. The purpose of pretesting the materials is to assess whether they are understandable, relevant, attractive and acceptable to the target audience.

The best way to see if your materials are easy-to-read and understood by clients is to conduct a focus group. By holding a focus group, you get feedback to help your materials be even more understandable, relevant, attractive and culturally competent.

Ideally, your focus group would be 5-7 people who are in the target audience for the publication (in terms of gender, ethnicity, primary language, etc.). A sample focus group protocol follows. Before your focus group begins, develop questions, both general and specific in order to guide the conversation.

If you are unable to hold a full focus group, then try to ask individuals to critique your materials. Again, it is ideal to have people from the target audience do this. At the very least, have 2 or 3 coworkers review the materials. You can ask the same questions as you would to a focus group, but keep in mind that individuals may not be as open with criticism as they might be in a group setting.

See the following page for a sample focus group protocol.

Online resources for conducting focus groups:

The Free Management Library's webpage on conducting focus groups
http://www.managementhelp.org/grp_skll/focusgrp/focusgrp.htm

A website with tips on conducting focus groups by the Market Navigation, Inc.
http://www.mnav.com/qualitative_research.htm

The Community Toolbox provides over 6,000 pages of practical skill-building information on over 250 different topics. Topic sections include step-by-step instruction, examples, check-lists, and related resources.
http://ctb.ku.edu/index.jsp

A guide to conducting focus groups with youth, including sample questions developed by the Canadian Forces Personnel Support Agency to help support children in military families (pdf).
http://www.cfpsa.com/en/psp/youth/resources/focusGroupQuestions_e.pdf

Sample Focus Group Protocol

Location
Date
Time

Purpose of focus group:
To review and critique the Brochure on Prescription XYZ.

I. INTRODUCTION

a) Hi everybody and thank you for being here. My name is Jane Doe and I am here to ask you questions about a brochure that our organization wants to hand out. This is my colleague John Smith, who is here to listen and take notes. Thank you for taking time to participate in this discussion group. We will keep the meeting to about 1 hour. We won't take any breaks during the session, so please get up to use the bathroom or get food as you need. If any of you have a cell phone, please turn it off.

b) We are really looking for honest feedback, so please don't hold back. The questions we ask you today are all designed to help us create better informational materials in order to provide better health care. All of the information you share with us today will be confidential. We are interested in anything and everything that you have to say.

c) As moderator for our discussion, my job is to make sure that we stay focused on the topic, get to all the questions, and see that everybody gets to participate. Your job is to give your ideas, and share your experiences related to my questions and to comments made by other members of the group. Please remember that there are no right or wrong answers! Everything you tell us is valuable. Please speak loudly and clearly, one person at a time. Be respectful of what others have to say, but if you don't agree we want to hear why. We ask that you respect each other's privacy and keep all discussion comments to yourself after this focus group so that we can create a safe and comfortable environment during our conversation.

II. PARTICIPANT INTRODUCTIONS AND WARM-UP

Let's start by having everybody introduce himself: please tell us a first name and age.

III. DISCUSSION QUESTIONS

a) Please take a few minutes and read through the Brochure on Prescription XYZ. When you're reading, feel free to circle or mark any words that you don't understand or any confusing sentences.

b) What is your first impression when you look at the Brochure on Prescription XYZ? What do you think it is about? Does it look like something you would read?

c) Do you like the title "the Brochure on Prescription XYZ"?

d) What do you think of the pictures and/or drawings?

e) What is the main thing you learned from reading the Brochure on Prescription XYZ?

f) Are there any words or sentences that you had a hard time understanding or didn't make sense?

g) Can you tell me in your own words how you would take this prescription?

h) Can you tell me in your own words who should **not** take this prescription?

i) Do you have any other comments you would like to make about Brochure on Prescription XYZ?

IV. WRAP-UP

Thank you so much for your time and input. Again, this information is very important to help make our information easier to understand and to make sure people are taking their medicine correctly. You all have our contact information, so if you think of anything else that we should know or have a comment that you were not comfortable sharing with the group, feel free to get in touch with us. Thank you!

Note on Informed Consent

When conducting a focus group or pretesting your materials in another way, it is important to have the participant sign an informed consent form. Often times, due to legal jargon, informed consent materials are written at an extremely high literacy level. It is important to consider the audience that will be reading and signing the informed consent form and try to make it as close to their literacy level as possible. This toolkit does not go into detail on making informed consent documents easy-to-read, but there are a number of resources available online should you want to review your organization's current paperwork.

Resources

This paper provides techniques to develop easy-to-read consent forms along with examples of standard consent forms rewritten in a plain language format.
http://www.texashealth.org/ContentStore/IRBResearchReadabilityMay2003.pdf

This document gives a checklist for a writer to consider when creating a plain language consent form; it also has a glossary of common hard-to-read consent language with plain language synonyms.
http://www.wfu.edu/rsp/irb/documents/Checklist%20for%20Easy-to-Read%20Informed%20Consent.doc

Examples

The following pages contain “before and after” examples of health education materials developed for clients. Each example has a brief description, the original document and the revised, easier-to-read version. The changes made between the before and after documents are based upon the methods outlined in this toolkit. To highlight the power of language, changes have not been made to the overall layout of the document; however, when revising and creating documents of your own, it is important to consider the aesthetics of the document.

Before & After Example #1

Birth Control Pills Pamphlet

This example is designed to illustrate the importance of layout and being selective of which information to include.

The original pamphlet has a reading level of approximately 10th grade. While the information provided is important, it is very text-dense, which can overwhelm someone who is not a strong reader.

The revised handout has a readability score of 8th grade and a dramatically increased amount of white space. Additionally the bulleted lists help present the information in a logical way.

Also, it is important to remember that you will never be able to replace client-provider conversations with written materials. If you feel your writing is getting too detailed, it probably is. Try to narrow down the writing to the most important information for a majority of clients.

If You Forget

If you miss one pill: Take it as soon as you remember and then continue taking one pill each day at your usual time. You do not need to double up. You are still protected from pregnancy.

If you miss two or more pills in a row: Take only the last missed pill as soon as you remember and then continue to take one pill each day at your usual time **plus** use condoms or abstain until you have taken seven pills.

Also

- If the missed pills were in the 1st week of the pack **and** you have had unprotected sex, you need to take emergency contraception.
- If the missed pills were in the 3rd week of the pack:
  - Finish the pills left in the 3rd week
  - Throw away the last week of pills (the "reminder" pills)
  - Start a new pack right away

  You are still protected. You won't have a period that cycle, but may experience some spotting.

With any missed pills you might have spotting or bleeding, so try to take them at about the same time each day.

Tips for Effective Pill Use

- Find a time of day to take your pills that works for you.
- Set your cell phone to remind you
- Have your partner remind you
- Keep an extra pack of pills on hand
- Have Emergency Contraception on hand (or call for it!)

Agency Name and Logo

Address of site one
555.555.5555

Address of site two
555.555.5551

Address of site three
555.555.5552

Address of site four
555.555.5553

EC On-Call Weekends and Holidays
1.800.555.5554

1/2007

Agency Name and Logo

About Your

Birth Control Pills

Before—Original

Birth Control Pill Basics

- There are many brands of birth control pills; all of them are safe and effective. You may like the first one you try or you may need to try several before you find the one that's right for you.

- Pills give you **excellent** pregnancy protection. Typically, five out of 100 women on the pill might become pregnant in a year. Without birth control, it's 85 out of 100!

- The longer you take birth control pills, the more protection you get from ovarian and uterine cancer.

- Pills give you lighter, shorter, more regular bleeding each month with less cramping. They can also improve acne.

- With some brands, you can safely choose to skip any period or have only four periods a year. Ask a Health Quarters clinician for more info.

- Studies show that the pill will **not** cause weight gain.

- **Emergency contraception** is a type of birth control pill that can be used if:
  - You are two or more days late starting a new pack of pills
  - You miss two or more pills in the 1st week of pills
  - You have unprotected sex in the 1st week of your first pack of pills

My Pill _____

Start today.
You are protected once you have taken seven pills*.
Start the first day of your period.
You are protected right away.
Start on the Sunday after your period begins.
If period starts on Sunday: Take your 1st pill then. You are protected right away.
Period starts on any other day: Wait for Sunday to take your 1st pill. You're protected when you've take seven pills*.
Start your pills on_____.
Use condoms or abstain for __days.

* In the time between the 1st and 7th pill, do not have sex or use condoms. If you have unprotected sex, take emergency contraception and continue to take a pill each day. You'll be protected again once you have taken seven pills.

Continue to take a pill every day at about the same time. If you take a pill late, you may spot or bleed. This is not serious, but it can be troublesome.

Your period should come during the last week of pills. The last seven pills in the pack are "reminder" pills. **You are protected during this week** – even if you forget any of these pills.

When you finish one pack, immediately start the next one. Start even if you are still bleeding, if your period was very light, or you didn't bleed at all.

Things to Remember

- Use condoms for protection from sexually-transmitted diseases.

- Minor side effects - breast tenderness, nausea, spotting or bleeding, mood changes - usually go away once you get used to the pills.

- Blood clots in your veins are rare but serious complications of the pill. Smoking, especially in women over 35, and those with an inherited clotting problem or other medical conditions, are at increased risk. Call us or go to the ER if you experience any of these:

A Abdominal pain: severe
C Chest pain or shortness of breath
H Headache: new, severe, unusual
E Eyes: loss of vision/flashing lights
S Severe pain in one leg: redness/swelling

- Some medications such as Tegretol, Dilantin, Trileptol, and St. John's Wort can make your pills less effective, so please tell our clinician what you are taking. Antibiotics have **not** been shown to affect your pills.

- Taking a daily multivitamin while on the pill is good for your health.

A Final Word

If you have questions or concerns, stay on your pills and call an HQ clinician.

All about Birth Control Pills

The name of my birth control pill is:_____

I will take the first pill on this date:_____

If I have any questions, I will call my nurse at (555) 555-5555

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Tips for getting started:

- **Take your pill at the same time every day**. To help you remember, set your cell phone alarm to go off every day or take your pill with something you do at the same time each day, like waking up or eating lunch.

- **Take one pill each day. Even when you start a new pack, do not skip a day**. If you do skip a day, take the pill you forgot when you take your next pill (take 2 pills at once).

- **After 7 days in a row of taking the pill, the birth control will work.** During the first seven 7 days use condoms or do not have sex. If you do have unprotected sex, take Emergency Contraception (EC) and continue taking your pill on your regular schedule.

- **Do not smoke when you are taking birth control pills**. If you are a smoker, make sure your doctor or nurse knows.

- **Ask your doctor or nurse for emergency contraception (EC)** for back-up in case you miss more than one pill in a row.

- **Some women have "side-effects".** You may feel sick to your stomach, or have some "spotting" (very light bleeding from your vagina), or your breasts may hurt a little. These should go away once your body is used to the pill.

- **A few women can have serious reactions to birth control pills**. If you have any of these after you start your birth control pills, go to the **Emergency Room** (ER):
    - very bad cramps in your stomach or legs,
    - bad headaches that do not go away,
    - chest pain,
    - trouble seeing.

Turn Over ⇨
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Fun facts about birth control:

- It can give you **shorter, lighter periods**
- It can **lessen cramps and PMS**
- It can help **clear up acne or break-outs**
- It does **not make you gain weight**!
- Antibiotics have **not** been shown to make your birth control pills stop working.
- Some types of birth control pills let you have **just four (4) periods a year**. Talk to your nurse or doctor about this.

Remember to always use condoms! Birth control pills only stop pregnancy, not sexually transmitted diseases (STDs) or HIV.

Agency Logo
Agency Name

Address One
555.555.5555

Address Two
555.555.5551

Address Three
555.555.5552

Address Four
555.555.5553

If you need to speak with someone about EC call 1.800.555.5554 anytime, including weekends and holidays.

Before & After Example #2

Doxycycline Prescription Information

The original sheet detailed prescription information for Doxycycline. The sheet would be given to the client by a provider when prescribing this medication. After completing a SMOG readability assessment, the document was at a 12th grade reading level.

The revised sheet details the same information but uses easier-to-read words and format. By using questions as headings for the information, clients feel more at ease; it takes away the paternalistic tone of directions and warnings and replaces it with a conversational, caring voice. After rewriting, the SMOG readability assessment showed a 9th grade readability level. Though still a relatively high reading level, it is easier to understand for many and becomes a better tool to supplement the conversation between provider and client.

Before—Original

Doxycycline 100-mg tablets

Common Uses: This medicine is a tetracycline antibiotic used to treat certain bacterial infections.

How to use this Medicine: Follow the directions for using this medicine provided by your medical provider. TAKE THIS MEDICINE with a full glass (8 ounces) of water while standing or sitting upright. TAKE THIS MEDICINE with food if it upsets your stomach. Do not take vitamins, antacids, calcium, iron, magnesium, or bismuth products within 2 hours of taking this medicine. STORE THIS MEDICINE at room temperature, away from heat and light. TO CLEAR UP YOUR INFECTION COMPLETELY, continue taking this medicine for the full course of treatment even if you feel better in a few days. Do not miss any doses. IF YOU MISS A DOSE OF THIS MEDICINE, take it as soon as possible. If it is almost time for your next dose, skip the missed dose and go back to your regular dosing schedule. Do not take 2 doses at once.

Cautions: If your symptoms do not improve within a few days or if they become worse, check with your medical provider. THIS MEDICINE MAY CAUSE increased sensitivity to sunlight. Avoid exposure to the sun or sunlamps until you know how you react to this medicine. Use sunscreen or protective clothing if you much be outside for a prolonged period.

(see reverse side —>)

IF YOU EXPERIENCE difficulty breathing, tightness in the chest, swelling of eyelids, face, or lips, or if you develop a rash or hives, tell your medical provider immediately. Do not take any more doses of this medicine unless your medical provider tells you to do so.

USE OF THIS MEDICINE IN CHILDREN may cause permanent discoloring of the teeth. FOR WOMEN: TAKING THIS MEDICINE while using birth control pills, the effectiveness of the birth control pills may be decreased for the first two weeks while taking this medicine. Use an additional form of birth control for the first two weeks. THIS MEDICINE HAS BEEN SHOWN TO CAUSE HEARM to the human fetus (unborn baby). IF YOU PLAN ON BECOMING PREGNANT, discuss with your medical provider the benefits and risks of using this medicine during pregnancy. THIS MEDICINE IS EXCRETED IN BREAST MILK. DO NOT BREAST-FEED while taking this medicine.

Questions and Answers About Your Medicine

Name: Doxycycline 100-mg tablets
(Docks-ee-sy-kleen)

What is this medicine for?
Your doctor is giving you this medicine to treat a bacterial infection. This medicine is an antibiotic, which means it kills the germs that cause some bad coughs, skin rashes, and urinary tract infections. If you are not sure why your doctor wants you to take this medicine, call and ask your doctor.

Is there any special way I should take this medicine?
- Swallow the pills whole (do not crush them).
- When you swallow the pills, drink a glass of water (about the size of a soda can).
- For 2 hours before you take your pills or until 2 hours after you have taken your pills do **not** take:
    - Vitamins (multi-vitamin)
    - Antacids (Tums)
    - Calcium
    - Iron
    - Magnesium
    - Bismuth products (Pepto Bismal)

Where should I store this medicine?
- Keep this medicine in the bottle it comes in with the lid on tight.
- Keep this medicine out of the reach of children.
- Keep this medicine in a place that will not get very cold, very hot, or wet.

What should I do if the medicine upsets my stomach?
- If your stomach hurts after taking the medicine, eat a snack before taking the next dose of medicine.

What should I do if I forget to take the medicine?
- If your next planned pill-taking time is less than 2 hours away, skip the medicine that you forgot to take and keep taking the medicine as normal. Do not take both doses at the same time.
- If your next planned pill-taking time is more than 2 hours away, take the medicine you forgot about as soon as you remember. Take the next dose of medicine at the normal time you planned on taking it.

Turn Over →

Should I keep taking the medicine even if I feel better?

- YES!!! Even though you feel better, you need to finish all the pills in the bottle to make sure the medicine kills all the germs so that you do not get sick again.

What else should I know about this medicine?

- This medicine makes some people get sunburned more easily. If you are going outside for a long time, wear sunscreen and long pants and shirts to protect your skin from the sun.

Call your doctor right away if:

- you are having a hard time breathing
- your chest hurts or feels tight
- you eyelids, face, or lips get puffy and swollen
- you notice a new rash or hives on your skin

*** If any of these things are happening **call your doctor** and do **not** take any more of this medicine.***

What if I know I'm having a baby or think I might be pregnant?

- If there is **any** chance you are pregnant do **not** take this medicine. It could hurt the unborn baby.
- Tell your doctor and he or she will give you a different kind of medicine

What if I am breastfeeding my child?

- Do **not** take this medicine if you are breastfeeding.
- Tell your doctor and he or she will give you a different kind of medicine.
- This medicine gets into breast milk.

What if I am on birth control pills?

- This medicine may make your birth control pills **not work** for two weeks after you first begin taking the medicine.
- **Make sure to use another kind of birth control for those two weeks** (like condoms, a diaphragm, or do not have sex).

If you still have questions about this medicine or why you are taking it, ask your nurse, doctor, or pharmacist.

Before & After Example #3

Strep Throat Care Sheet

This example is of a patient care sheet for strep throat. The revised version shows an excellent model of prioritizing information and providing only the necessary information. By reducing the amount of medical jargon and extraneous facts, the information becomes easier to understand and follow for the client.

The original document is 274 words at a 10th grade literacy level, while the revised document is 43 words at a 6th grade literacy level.

Streptococcal Pharyngitis (strep throat)

Your doctor has diagnosed you as having streptococcal pharyngitis, or “strep throat.” Strep throat is caused by Group A beta hemolytic streptococcus, a common bacteria in the nose and throat that can cause sore throats (pharyngitis) and skin infections. Symptoms of strep throat include pain and redness in the throat, difficulty swallowing, fever, and swollen glands in the neck. Sometimes there is a rash going along with the sore throat, in which case patients are said to have “scarlet fever.” Strep throat occurs most commonly in children.

The symptoms of strep throat go away by themselves, even without treatment. Without treatment, however, a small percentage of patients with strep throat will develop rheumatic fever, a serious disease of the heart and heart valves. When patients get rheumatic fever, heart valves may be damaged and in the future, the patient may need open heart surgery to replace a heart valve. Although rheumatic fever is uncommon, in recent years there have been more cases reported.

The treatment for strep throat involves taking penicillin, an antibiotic that kills the streptococcus bacteria. The reason for treating strep throat is not to make the sore throat get better quicker. Rather, the reason for treating strep throat is to prevent the development of rheumatic fever. Treatment with penicillin for 10 days almost always prevents rheumatic fever. It is important that you take the penicillin for the full 10 days, even if you are feeling better before the medicine is used up. That’s because taking the penicillin for less than 10 days may not protect you against rheumatic fever. Patients allergic to penicillin can take one of several other medications.

Treating strep throat

Take your pills two times each day (once in the morning and once in the evening).
Take the medicine every day for 10 days, even if you feel better before then.
Stopping the pills before 10 days can result in serious heart problems.

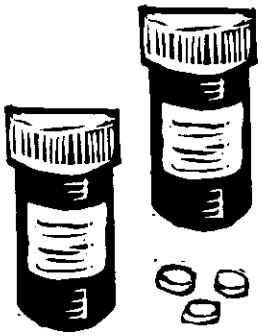
Example taken from: Weiss BD. Health Literacy: A Manual for Clinicians. American Medical Association Foundation. 2003.

A Few Well-Written Plain Language Materials

The following three examples are of well-written plain language health education materials.

1. Prescription Information: *How to Take Your Invirase*
2. Brochure: *Emergency Contraception*
3. Brochure: *Choosing a Birth Control Method*

How to take your



INVIRASE

(also called Saquinavir)

Protease Inhibitor (PI)

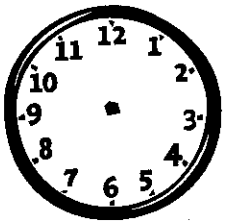
What is Invirase?

Invirase is a strong medicine that can reduce the amount of HIV in your body. Invirase fights HIV best when you take it together with one or more other anti-HIV medicines. Invirase is ofted used in combination with another protease inhibitor called Norvir (Ritonavir). Fortovase is a different form of this medicine that is usually taken without other protease inhibitors.

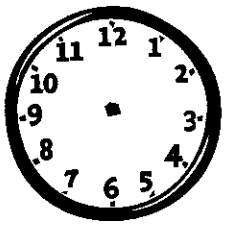
How many pills do I take? And when do I take them?

Each day, take _____ pills every _____ hours.

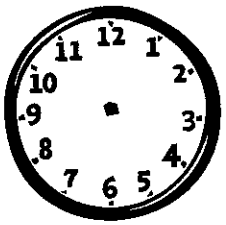
Take your pills at these times EVERY DAY:



Morning



Afternoon



Evening

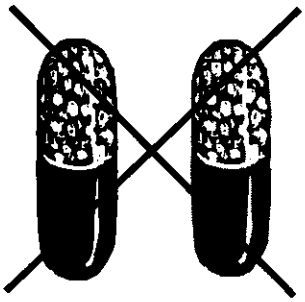
Important: To be sure there is always enough Invirase in your body to fight HIV, take your pills as close to these times as possible. And be sure to take the right number of pills each time.

If you have these or other side effects:

- Keep in mind that most side effects go away in few days or weeks.
- Call your doctor or nurse. They may have ways to relieve your side effects.
- DO NOT take fewer pills or stop taking your pills. Talk to your doctor first.
- Try the ideas in the tip sheet, *"Coping with Side Effects"*.

Important: Some possible side effects of Invirase can only be discovered by lab tests done by a doctor or nurse. So be sure to go to all your doctor's visits.

What are the medicines I should NOT use now that I'm taking Invirase?



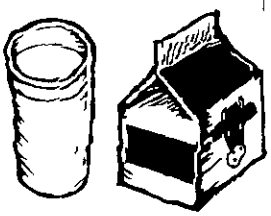
Some medicines don't mix well with Invirase. Taking Invirase when you are using these medicines could make you very sick or cause the medicines not to work.

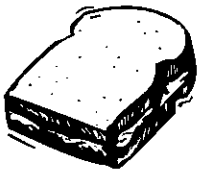
Your doctor knows which medicines are safe to take with Invirase and which are not. **Be sure you have told your doctor about ALL the medicines you are taking.** This includes:

- medicines prescribed to you by a doctor
- medicines you can buy without a prescription
- herbal medicines
- street drugs

Special Instructions for taking Invirase:

- Take your pills while you eat a meal or snack. Your body absorbs Invirase best when you have food in your stomach.





What if I forget to take my pills on time?

- When you notice that you missed a dose, take your pills right away.

Then, for your NEXT DOSE:

- **If your next planned pill-taking time is ____ or more hours away,** take your next dose at the planned time.

- **If your next planned pill-taking time is less than ____ hours away,** DO NOT take your next dose at the planned time. Instead, wait four hours and then take your next dose.

If you forget more than one dose in a week, call your doctor or nurse to talk about what to do.

What should I do if I have side effects?

Some people who take Fortovase have side effects (unwanted effects of the medicine). Possible side effects include:

- diarrhea
- feeling sick to your stomach

Call your doctor or nurse if:

- you have questions about how to take Invirase
- you are being bothered by side effects
- you feel like stopping or taking less Invirase
- you are having trouble taking Invirase on time
- you want to start taking ANY medicine you are not now taking.

DON'T FORGET:

You can still spread the virus.

The anti-HIV medicines you are taking can help you stay healthier longer. But they do not cure HIV. To avoid passing HIV to others: Practice safe sex. Don't share needles or syringes.

Developed by John Snow, Inc. and JSI Clinical Research. Boston, MA, 2002.
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JSI

English

ECPs are for Emergency Use Only

ECPs are not for use as regular birth control. They are not as effective as regular birth control methods.

If you are having sex, use a regular birth control method (the pill, condoms, the shot, etc.)

ECPs don't protect you from sexually transmitted infections and AIDS. Condoms are the most effective protection against sexually transmitted infections and AIDS.

How Can I Get ECPs?

You can get ECPs from your doctor or clinic, including community clinics or health department clinics.

Call and tell them you need **Emergency Contraceptive Pills**.

If you're not sure where to go, call the:

Emergency Contraception Hotline
1-888-668-2528
(1-888-NOT-2-LATE)

English and Spanish are spoken.

The automated hotline is **free**, **confidential** and open **24 hours** a day. It will tell you where you can go for help.

You can also get more information on the:

World Wide Web
http://opr.princeton.edu/ec/

path

PATH is a nonprofit, international organization with headquarters in Seattle, Washington. PATH's mission is to improve health, especially the health of women and children.

This project is supported by the John Merck Fund; the Horizons Foundation; the U.S. Public Health Service, Region X; and the Henry J. Kaiser Family Foundation.

11/98

Emergency Contraception

It's Not Too Late To Prevent Pregnancy

Scared You're Pregnant?

Consider using **Emergency Contraception** if you had sex in the last 3 days and:

- you didn't use birth control
- the condom broke
- you were late for your birth control shot
- you missed two or more birth control pills in a row or started your pack late
- you were forced to have sex

Emergency contraception is a way to prevent pregnancy *after* sex.
There are two main methods of emergency contraception:

1. **Emergency Contraceptive Pills** (also known as ECPs or Morning After Pills) used within **3 days after sex**, or
2. **IUD** (intrauterine device) inserted within **5 days after sex.**

Ask your medical provider for details.

What are Emergency Contraceptive Pills (ECPs)?

ECPs are ordinary birth control pills. They are taken in **special doses within 3 days after sex** to prevent pregnancy. They reduce your chance of getting pregnant by 75%.

Don't Wait!

To help prevent pregnancy, you must take the Emergency Contraceptive Pills within 3 days (72 hours) after sex.

How Do ECPs Work?

ECPs help prevent pregnancy by:

- temporarily stopping eggs from being released, or
- stopping fertilization, or
- stopping a fertilized egg from attaching to the womb.

ECPs will **not** work if you are already pregnant. ECPs are **not** abortion pills.

For information, call the Emergency Contraception Hotline. Free, confidential, 24 hours a day.

1-888-668-2528

(1-888-NOT-2-LATE)

Are They Safe?

The U.S. Food and Drug Administration has stated that ECPs are safe. They can greatly reduce the chance of pregnancy after unprotected sex.

Talk to your medical provider to learn if there is any reason you should not use ECPs.

Are There Side Effects?

ECPs make some women feel sick to their stomach or vomit. Some women may have sore breasts or headaches. These side effects last about one day. ECPs can also cause some women's periods to come a little early or late.

EMERGENCY BIRTH CONTROL

*Emergency birth control can prevent pregnancy **after sex**, but only if you use it **as soon as possible**–within a couple of days. If you had unprotected sex (sex without using birth control), were forced to have sex, or think your birth control method didn't work, you may be able to use one of these methods to prevent pregnancy.*

Emergency Contraceptive (EC) Pills (for women): EC pills are a high dose of birth control pills that work best to prevent pregnancy when you take them within the first 12 hours after unprotected sex. Most health care providers will give you EC pills up to 3 days (72 hours) after unprotected sex. Others will give them to you up to 5 days (120 hours) after. Some providers will give you EC pills now if you think you will need them in the future. Don't wait! Take EC pills as soon as possible after unprotected sex.

YOU CAN GET EC PILLS with a prescription from your doctor or clinic, or from the pharmacist at some drug stores, without seeing a doctor first. For more information about where to get EC, call your health care provider or family planning clinic, ask your pharmacist, or call 1-888-NOT-2-LATE (www.not-2-late.com).

Emergency IUD insertion (for women): Within 7 days of unprotected sex, you can have an IUD inserted to prevent pregnancy. A doctor or nurse must insert it.

BIRTH CONTROL AFTER HAVING A BABY

If you have just had a baby or are breastfeeding now, ask your doctor or nurse about which types of birth control you can use so that you don't get pregnant again until you want to.

MASSACHUSETTS FAMILY PLANNING PROGRAMS PROVIDE THESE SERVICES:

- ***Birth control information and supplies***
- ***Breast exams, Pap smears and other medical exams***
- ***Pregnancy testing and counseling***
- ***Testing and treatment for STDs***
- ***Information, counseling and testing for HIV***

Massachusetts family planning services are confidential and private for all clients, including teens. You may be able to get services at low cost or no cost to you.

GREATER BOSTON

ABCD/Boston Family Planning
617-357-6000 ext. 6251

CEOC Cambridge Family Planning
617-868-2900

CHA Somerville Family Planning
617-591-6735

Planned Parenthood League of MA
(Boston, Somerville Express Center)
617-616-1600 or 1-800-258-4448

CENTRAL MASSACHUSETTS

Great Brook Valley Health Center
(Worcester) 508-852-1805

Health Awareness Services of Central MA
(Worcester) 508-753-0800
(Marlboro, Milford, Southbridge) 1-800-637-5466

Planned Parenthood League of MA
(Worcester) 508-854-3300 or 1-800-258-4448

ProHealth
(Fitchburg) 978-345-6272, (Gardner) 978-632-9633

Tapestry Health Systems
(Athol) 413-586-2016 or 1-800-696-7752

NORTHEASTERN MASSACHUSETTS

Health Quarters
(Beverly, Lynn, Haverhill, Reading, Lawrence)
978-927-9824 or 1-800-892-0234

Women's Services of Greater Lowell
978-446-0236

SOUTHEASTERN MASSACHUSETTS

Citizens for Citizens Family Planning
(Fall River) 508-679-0198
(Taunton) 508-823-6924

Health Care of Southeastern MA, Inc.
(Attleboro, Brockton, Falmouth, Hull, Hyannis, Martha's Vineyard, Nantucket, New Bedford, Plymouth, Provincetown, Wareham) 508-583-3005

WESTERN MASSACHUSETTS

Planned Parenthood League of MA
(Springfield) 413-739-1620 or 1-800-258-4448

Tapestry Health Systems
(Amherst, Great Barrington, Greenfield, Holyoke, North Adams, Northampton, Pittsfield, Springfield, Westfield)
413-586-2016 or 1-800-696-7752

To find a family planning program near you call:

- **617-624-6060** *(Greater Boston area)*
- **877-414-4447** *(all other areas of the state) or go to our website:* ***www.mass.gov/dph/fch/famplan.htm***

To find other counseling programs and services near you, call:

- **HIV/AIDS/STD Hotline: 1-800-235-2331** *(English, Spanish) TTY: 617-437-1672*
- **Domestic Violence Hotline: 1-877-785-2020** *TTY: 1-877-521-2601*
- **Rape Crisis Hotline: 1-800-841-8371** *(English)* **1-800-223-5001** *(Spanish)*

Massachusetts Department of Public Health 2006

***You can decide** if and when to have a baby. **If this is not the right time** for you to have a baby, **there are ways you can prevent pregnancy.** The surest way to prevent a pregnancy is to not have sexual intercourse. But if you do have sex, you can use one of the birth control methods described in this brochure. Once you choose a method, it's important to use it the right way, every time. **For more information** about how effective a method is, what kinds of side effects it might have, and how to use it correctly, **ask your doctor, nurse or family planning counselor.** Or call the phone numbers at the end of this brochure.*

BIRTH CONTROL METHODS

BARRIER METHODS

These methods prevent pregnancy by putting up a block (barrier) that keeps the man's sperm from reaching the woman's egg.

Condoms (for men): A condom is a thin latex or plastic cover that is rolled onto the erect penis before sex to keep sperm from entering the vagina. You can buy condoms at any drugstore. Health care centers may have free or low cost condoms.*

Female Condoms (for women): The female condom is a plastic pouch with a flexible ring at each end. The closed end is put into the vagina. The open end stays just outside the vagina. The female condom keeps sperm from entering the vagina. Some drugstores sell female condoms. Health care centers may have free or low cost condoms.*

*Latex and plastic condoms can also prevent HIV and other diseases spread through oral, vaginal and anal sex. "Natural skin condoms" are not recommended for disease prevention.

Diaphragm (for women): The diaphragm is a flexible, round rubber cup that covers the woman's cervix (the opening to the uterus). You put spermicide in the diaphragm and then put it in the vagina before having sex. Spermicide kills sperm. You must leave the diaphragm in for at least 6 hours after sex. A doctor or nurse must examine you to be sure you get the right size diaphragm.

Spermicides (for women): Spermicides prevent pregnancy by killing sperm. Spermicides come in foams, jellies, creams, sponges and contraceptive film. You must put spermicides into the vagina before sex. You can buy spermicides at any drugstore. Spermicides work best when used with a condom or diaphragm.

CAUTION: Spermicides prevent pregnancy but may increase your risk of HIV. Spermicides contain a chemical (Nonoxynol-9) that can irritate the skin in or around the vagina. If you want to use spermicides to prevent pregnancy, talk to your doctor or nurse about your HIV risk.

HORMONAL METHODS AND IUDS

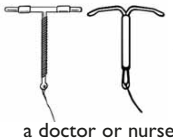
These methods use hormones to stop eggs from being released or make it harder for sperm to reach an egg.

Birth Control Pills (for women): Birth control pills contain hormones that prevent pregnancy. You must take a pill every day. When you get to the end of your pack of pills, your period will start. Soon after, you must start a new pack of pills. A doctor or nurse must give you a prescription.

"The Shot" or "Depo" (for women): A doctor or nurse gives you a shot (injection) of a hormone to prevent pregnancy for 3 months. You must get a shot every three months for this method to keep working.

"The Patch" (for women): The patch contains hormones that prevent pregnancy. You stick a patch to your skin and change it once a week for 3 weeks. The 4th week you do not use a patch and your period will start. At the end of the 4th week you put on a new patch, and start the process over again. A doctor or nurse must give you a prescription.

Vaginal Ring (for women): This clear, flexible ring contains hormones that prevent pregnancy. You put it into your vagina and leave it in for 3 weeks. On the 4th week you take out the ring and your period will start. At the end of the 4th week you put in a new ring, and start the process over again. A doctor or nurse must give you a prescription.



IUD (for women): IUD stands for intrauterine device. An IUD is a small device made of plastic that is put inside a woman's uterus by a doctor or nurse. There are two types of IUDs. One contains copper and the other contains a hormone to prevent pregnancy. An IUD may be left in place for 5-10 years, depending on the type.

BEHAVIORAL METHODS

Partners must be able to talk to each other and work together for these methods to work best.

Abstinence (for women and men): Abstinence means not having sexual intercourse at any time. For some people, not having sex is the best way to prevent a pregnancy. Practiced correctly, abstinence is very effective at preventing pregnancy, HIV and other STDs.

Natural Family Planning (for women and men): A doctor or nurse teaches you to keep track of the monthly changes in your menstrual cycle, so that you can understand which days you are most likely to get pregnant. You and your partner can then prevent pregnancy by using a barrier method of birth control or not having sex on the days when you are most likely to get pregnant.

PERMANENT METHODS

*These methods last for the rest of your life. They are for people who are sure they will **never** want to have children in the future.*

Tubal Ligation and Essure (for women): Tubal ligation ("having your tubes tied") and Essure are two different medical procedures for blocking the woman's fallopian tubes so that eggs cannot meet sperm. Both procedures must be done by a doctor.

Vasectomy (for men): Vasectomy is an operation done by a doctor. The man's tubes that carry sperm are cut or blocked so that sperm is not released when the man ejaculates (cums) during sex.

TO PREVENT HIV AND OTHER STDS, USE A CONDOM

Latex or plastic condoms are the only kinds of birth control that are also highly effective in preventing HIV and other STDs. If you use other forms of birth control but also want protection against HIV and other STDs, use a condom in addition to the birth control method you are using.

Resources

Glossary: Plain Language Versions of Commonly Used Medical Terms

Here is a list of commonly used words medical terms "translated" into plain language. Try using the plain language terms when writing or speaking with clients.

Abnormal: outside the normal range; not normal

Abstinence: not having sex

Adequate: enough

Adolescence: teenage years

Adverse (reaction): bad

Anemia: a lower than normal level of red blood cells or iron

Annual: every year; yearly

Anorexia: not eating over a long period of time

Antibiotic: a drug that kills germs in the body

Assistance: help

Asymptomatic: showing no signs of being sick

Anxious: nervous, worried

Benign: will not cause serious harm; is not cancer

Chronic: always; does not end; constant; ongoing, a lifelong or long term illness

Clinician: doctor; nurse; a person trained in medicine

Continuously: always

Contraceptive: a way to keep from getting pregnant

Culture (lab procedure): test

Dermatologic: related to skin

Detected: found

Diagnose: find the cause of your illness

Directed: told by your doctor or nurse

Discard: throw away

Evaluate: test, check

Expel: to get rid of

External: outside of the body

Genital: around or on the vagina or penis

Gestational: related to or caused by pregnancy

Immunization: a shot to keep you from getting sick in the future

Implantation: set in; plant; attach

Indicator: sign

Infection: a type of sickness that can be passed to other people; a disease that can spread

Initial: first, beginning, starting

Infectious: can be passed from person to person; spreading

Infertility: not able to become pregnant

Insert: put into, stick in, enter

Malignant: able to cause serious harm or death

Minimize: make small

Monitor: watch, keep track of

Occasionally: at times

Penetrate: go in; break through

Pharmacy: drug-store

Potentially: that might be

Prenatal: before the birth of a baby; during pregnancy

Presently: now; at this time

Primary: main

Prior to: before

Promote: help, support

Proper: correct, right

Recreational Drug: street drug (provide examples)

Recur: happens again

Shall: must

Substance Abuse: using drugs and/or alcohol too much

Tablets: pills

Tearing: weepy, watering (eyes)

Temporary: for a short time, for a little while

Teratogenic: harmful to an unborn baby

Sometimes you are required to use a specific medical term. In this case, use the term followed by a definition. If the word is very long, consider providing a pronunciation (Pro-nun-see-AY-shun) guide. When describing parts of anatomy, you should consider using a picture in addition to the text.

Cervix: a name for the bottom part of the uterus, or womb

Pap smear: a test that takes a small sample of the cervix to check for cancer

Menopause: the time in a woman's life when she stops having her periods and can no longer get pregnant

Osteoporosis (say: AH-stee-oh-poor-OH-sis): softening of bones

Ovaries: part of the female reproductive health system; where a woman's eggs are made

Penis: the body part that a man's semen and urine come out of

Scrotum: the pouch of skin that holds the testicles

Testicles: part of the male body where sperm is made

Uterus: where babies grow during pregnancy; also called the womb

Vagina: the opening of a woman's body that leads to the cervix and uterus; where a penis would enter a woman during sex between a man and a woman; a baby goes from the uterus through the vagina when it is born.

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Health Literacy

A Manual for Clinicians

Part of an educational program about health literacy

Barry D. Weiss, MD

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Health Literacy

A Manual for Clinicians

Part of an educational program about health literacy

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Table of contents

Introduction 4

Health literacy 6

- General literacy skills: The National Adult Literacy Survey ... 6
- Literacy in the healthcare setting ... 9
- Implications of limited literacy ... 11
  - Literacy and health knowledge ... 11
  - Literacy and health outcomes ... 12
  - Literacy and healthcare costs ... 13
  - Literacy and the law ... 13

You can't tell by looking 14

- How can I tell if an individual patient has limited health literacy skills? ... 15
  - Red flags ... 15
  - Social history ... 16
  - Medication review ... 16
- Measuring health literacy ... 17
  - REALM ... 17
  - TOFHLA ... 17

Strategies to enhance your patient's health literacy 18

- Making your practice patient-friendly ... 18
  - Attitude of helpfulness ... 21
  - Scheduling appointments ... 21
  - Office check-in procedures ... 22
  - Referrals and ancillary tests ... 23

continued

- Improving interpersonal communication with patients 24
  - Communication and malpractice lawsuits 24
  - Communication and medical outcomes 24
  - Steps to improve communication with patients 25
    - Slow down 25
    - Use plain, nonmedical language 26
    - Show or draw pictures to enhance patient understanding and recall 28
    - Limit the amount of information given at each visit — and repeat it 28
    - Use the teach-back and show-me techniques 29
    - Create a shame-free environment: Be respectful, caring, and sensitive 30
- Creating and using patient-friendly written materials 31
  - Written consent forms and patient education handouts 31
  - Principles for creating patient-friendly written materials 31
    - Depth and detail of the message 33
    - Complexity of text 34
    - Format 35
    - User testing 36
  - Nonwritten patient education materials 37
    - Graphic illustrations (pictures,pictographs, models) 37
    - Audiotapes and compact disks 37
    - Videotapes 38
    - Computer-assisted education 38

Final comments 39

Case discussions 41

Useful resources 44

References 45

CME Questionnaire 47

CME Answer Sheet 48

Introduction

Communication, essential for the effective delivery of healthcare, is perhaps one of the most powerful tools in a clinician's arsenal. Unfortunately, there is often a mismatch between a clinician's level of communication and a patient's level of comprehension. In fact, evidence shows that patients often misinterpret or do not understand medical information given to them by clinicians. This lack of understanding can lead to medication errors, missed appointments, adverse medical outcomes, and even malpractice lawsuits.

There are many reasons why patients do not understand what clinicians tell them. Key among them is inadequate health literacy — an individual's ability to read, understand, and use healthcare information to make effective healthcare decisions and follow instructions for treatment. Clinician's can readily improve their patient's understanding of healthcare information by adopting a more patient-friendly communication style.

The need for today's patients to be health literate is greater than ever, because medical care has grown increasingly complex. We treat our patients with an ever-increasing array of medications, and we ask them to undertake more and more complicated self-care regimens. For example, patients with congestive heart failure were prescribed digoxin and diuretics in the past, while today's patients take loop diuretics, beta-blockers, angiotensin-converting enzyme inhibitors, spironolactone, and digoxin. In the past, these patients were simply instructed to decrease their physical activity, but now they weigh themselves daily, report weight gain to their clinicians, eat low-sodium and often low-fat diets, and participate in structured exercise regimens. Similarly, therapy for patients with asthma was once limited to

theophylline pills, but today these patients must learn to use inhalers with spacers and understand the difference between controller medications and rescue medications. They must also test their peak flow rates on a daily basis, take tapering doses of prednisone, and identify and eliminate allergens in their homes. Patients with diabetes may have the most difficult task of all, as they need to understand factors affecting blood glucose control so they can modify insulin regimens on a meal-to-meal basis in response to finger-stick glucose measurements.

Unfortunately, current data indicate that a large proportion of the US population — perhaps as many as half of American adults — lacks sufficient general literacy to effectively undertake and execute the medical treatments and preventive healthcare it needs. Inadequate health literacy affects all segments of the population, although it is more common in certain demographic groups, such as the elderly, the poor, members of minority groups, and recent immigrants to the United States. The economic consequences of limited health literacy are considerable, estimated to cost the United States between $50 billion and $73 billion per year.

In the pages that follow, this manual will discuss the problem of limited health literacy, its consequences for the healthcare system, and the likelihood that a clinician's practice includes patients with limited health literacy. The manual will then provide practical tips for clinicians to use in making their office practices more "user-friendly" to patients with limited health literacy, and give suggestions for improving interpersonal communication between clinicians and patients. Finally, the manual concludes with several case discussions based on vignettes in the accompanying videotape.

Health literacy

Health literacy is the ability to read, understand, and use health information to make appropriate healthcare decisions and follow instructions for treatment. There are many factors that contribute to an individual's health literacy, the most obvious being the individual's general literacy, or ability to read, write, and understand written material. Other factors include the individual's amount of experience in the healthcare system, the complexity of the information being presented, cultural factors that may influence decision making, and how the material is communicated.

Of these factors, perhaps the most important patient factor is the individual's general literacy. Most individuals with limited general literacy also have limited health literacy. This section discusses the general literacy aspect of health literacy.

General literacy skills: The National Adult Literacy Survey

The National Adult Literacy Survey (NALS) conducted by the US Department of Education in 1992 provides the most comprehensive view of the general literacy skills of American adults. The NALS tested a stratified national random sample of some 26,000 adults who were interviewed in their homes and asked to provide personal and background information and to complete a booklet of literacy tasks. The NALS results were reported by dividing the literacy skills of subjects into five levels of difficulty according to their ability to use and understand text and numbers (Table 1).[1]

At the lowest level of literacy skill, termed NALS level 1, individuals can only perform basic tasks such as signing their name or finding a word or fact in a short written article. Individuals at NALS level 1 are often considered "functionally illiterate." Although they can perform some reading and writing tasks, their limited literacy skills prevent full functioning in today's society. Individuals in NALS level 2 have somewhat more advanced skills but are still substantially limited in their ability to read and understand text. They are considered marginally literate.

In contrast, persons at NALS levels 3, 4, and 5 have sufficient literacy skills to permit full functioning in society. Those at NALS level 5, the most advanced literacy level, have well-developed literacy skills that enable them to perform complex tasks, such as writing lengthy documents and extracting data from tables and graphs (Table 1).

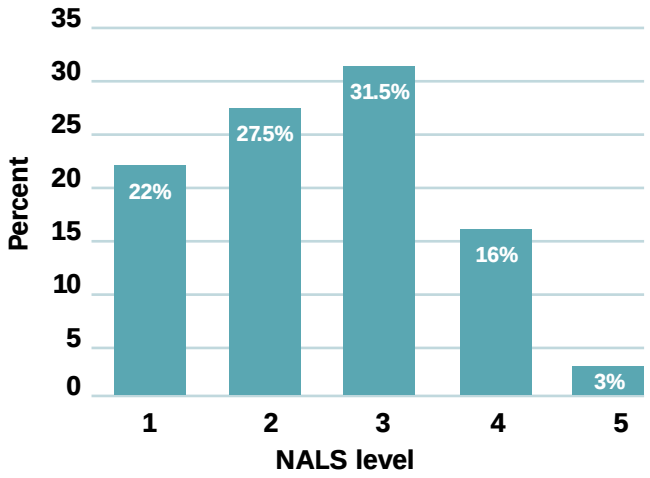
Table 1. Examples of tasks on the National Adult Literacy Survey (NALS)

Level	Sample tasks	Significance
1	• Sign name • Find a country in short article • Find expiration date on license • Locate one piece of information in a sports article	• Functionally illiterate • Unable to perform level 2 tasks
2	• Enter background information on a Social Security application • Find intersection on street map • Locate two pieces of information in a sports article	• Marginally literate • Unable to perform level 3 tasks
3	• Write a brief letter explaining an error on a credit card bill • Enter information into an automobile maintenance record • Identify information from a bar graph	• Functionally literate • Unable to perform level 4 tasks
4	• State in writing an argument made in a lengthy newspaper article • Explain difference between two types of employee benefits • Compare two metaphors used in a poem	• Functionally literate • Unable to perform level 5 tasks
5	• Summarize the way lawyers may challenge prospective jurors • Compare approaches stated in a narrative on growing up • Use table comparing credit cards to write about differences between them	• High-level literacy

Source: Kirsch I, Jungeblut A, Jenkins L, Kolstad A. *Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey.* Washington, DC: National Center for Education Statistics, US Department of Education; September 1993.

Nearly all doctoral-level clinicians fall within NALS level 5, but fewer than 5% of all adult Americans have literacy skills at this level. In fact, more than 20% of American adults have only level 1 skills, and another 27% score at level 2. This means that nearly half of the US population is either functionally illiterate or marginally literate (Figure 1).

Figure 1. Results of the National Adult Literacy Survey (NALS)



Histogram bars represent the percentage of subjects at each literacy skill level. Level 1 is the most basic literacy level. Level 5 represents an advanced level of literacy skill.

Data from: Kirsch I, Jungeblut A, Jenkins L, Kolstad A. *Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey.* Washington, DC: National Center for Education Statistics, US Department of Education; September 1993.

Persons with NALS level 1 and level 2 literacy skills are found in all segments of society. In fact, most are white, native-born Americans. Nonetheless, limited literacy skills are much more common in certain segments of the population.

Table 2 shows the percentage of certain "high-risk" population groups that scored in NALS level 1. These groups include the elderly, persons with limited education, members of ethnic minorities, and recent immigrants to the United States. Unemployed persons and those with limited income are also more likely to score in NALS level 1. Interestingly, visual difficulties (7%) and learning disabilities such as dyslexia (3%) account for literacy deficits in only a small percentage of NALS level 1 subjects.

If your patient population includes many individuals in any of the groups mentioned above, it is likely that your practice includes persons with limited literacy skills. It is important, however, to keep in mind that persons with limited literacy skills do not fit into easy stereotypes. Indeed, one recent study of affluent individuals living in a geriatric retirement community found that 30% scored poorly on a test of functional literacy in healthcare situations.[2] And the cover article of a recent issue of Fortune magazine told the stories of several dyslexic billionaire executives.[3] As with all poor readers, they had developed coping mechanisms that worked in their business and social lives but might not work well in an urgent healthcare situation.

Table 2. Percentage of adult population groups with literacy skills at NALS level 1

Group	Percent
Age	
16–54 years	15
55–64 years	28
65 years and older	49
Highest education level completed	
0–8 years	77
9–12 years	44
High school graduation (no college study)	18
High school equivalency diploma	16
Racial/ethnic group	
White	15
American Indian/Alaska Native	26
Asian/Pacific Islander	35
Black	41
Hispanic (all groups)	52
Immigrants to United States (various countries of origin)	
Arriving after age 12	>50

Average of prose and document literacy scores on the NALS.
Source: Tables 1.1A, 1.1B, 1.2A, and 1.2B in: Kirsch I, Jungeblut A, Jenkins L, Kolstad A. *Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey.* Washington, DC: National Center for Education Statistics, US Department of Education; September 1993.

Literacy in the healthcare setting

NALS level 1 and level 2 readers have the most difficulty with understanding healthcare information. Studies in healthcare settings have shown that persons with limited literacy skills often have a poor understanding of basic medical vocabulary and healthcare concepts. One study of patients in a general medical clinic found that many patients did not really understand the meanings of words that clinicians regularly use in discussions with patients — words like “bowel,” “colon,” “screening test,” or “blood in the stool” (Table 3).[4] In another study, it was discovered that one out of four women who thought they knew what a mammogram was, did not.[5]

Table 3. Common medical words that patients with limited literacy may not understand

- Blood in the stool
- Bowel
- Colon
- Growth
- Lesion
- Polyp
- Rectum
- Screening
- Tumor

Source: Davis TC, Dolan NC, Ferreira MR, Tomori C, Green KW, Sipler AM, et al. The role of inadequate health literacy skills in colorectal cancer screening. *Cancer Invest.* 2001;19:193-200.

Lack of understanding is not limited just to medical terms. Several studies, all conducted in primary care practices in different parts of the United States, have shown that persons with limited literacy skills also do not understand, or are not aware of, *concepts* basic to common diseases. For example, fewer than half of low-literacy patients with diabetes knew the symptoms of hypoglycemia,[6] and the majority of low-literacy patients with asthma could not demonstrate proper use of an asthma inhaler.[7] Table 4 shows some other problems experienced by persons with limited literacy skills when they interact with the healthcare system.[8-10]

It is important to emphasize that limited understanding of health concepts and health information is not solely a problem of persons with low literacy skills. For example, even patients with average reading levels are unable to understand most of the content of consent forms used for research studies of cancer drugs.[11] Highly literate, well-educated individuals also report difficulty understanding information provided to them by clinicians because clinicians often use vocabulary and discuss physiological concepts unfamiliar to those who do not have a medical education. In a well-known anecdote, a prominent obstetrician once reported that he was unable to fully understand the explanation he received from an orthopedist about his upcoming orthopedic surgery.

Table 4. Some other health system problems experienced by persons with limited literacy skills

26%	did not understand when their next appointment was scheduled
42%	did not understand instructions to "take medication on an empty stomach"
86%	could not understand the rights and responsibilities section of a Medicaid application

Sources: (a) Williams MV, Parker RM, Baker DW, Parikh NS, Pitkin K, Coates WC, et al. Inadequate functional health literacy among patients at two public hospitals. *JAMA*. 1995;274:1677-1682. (b) Baker DW, Parker RM, Williams MV, Pitkin K, Parikh NS, Coates W, et al. The healthcare experience of patients with low literacy. *Arch Fam Med.* 1996;5:329-334; (c) *Fact Sheet: Health Literacy and Understanding Medical Information.* Lawrenceville, NJ: Center for Health Care Strategies; 2002.

Implications of limited literacy

A limited ability to read and understand information translates into poor health outcomes. Most clinicians are surprised to learn that literacy is the single best predictor of health status. In fact, all of the studies that have investigated the issue report that literacy skills are a stronger predictor of an individual's health status than age, income, employment status, education level, and racial or ethnic group.[6,7,12,13]

Be aware that education level is a poor surrogate for literacy skills. Education level measures only the number of years an individual attended school, not how much the individual learned in school. Thus, asking patients how many years of school they completed does not help you predict their literacy skill. Indeed, fully 24% of NALS level 1 readers completed high school.[1]

Literacy and health knowledge

Patients with limited literacy skills have less awareness of preventive health measures and less knowledge of their medical conditions and self-care instructions than their more literate counterparts. This knowledge deficit has been shown for a variety of health conditions, ranging from childhood fever to asthma to hypertension. Persons with limited literacy skills also exhibit less healthy behaviors (Table 5).[6,7,14,15]

Table 5. Health knowledge deficits and risky behaviors of persons with limited literacy skills

Health knowledge deficits

- Patients with asthma less likely to know how to use an inhaler
- Patient with diabetes less likely to know symptoms of hypoglycemia
- Patients with hypertension less likely to know that weight loss and exercise lower blood pressure
- Mothers less likely to know how to read a thermometer

Less healthy behaviors

- More smoking, including during pregnancy
- More exposure to violence
- Less breastfeeding

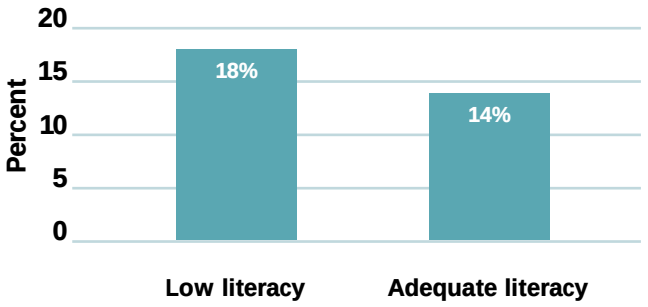
Sources: (a) Davis TC, Arnold C, Berkel HJ, Nandy I, Jackson RH, Glass J. Knowledge and attitude on screening mammography among low-literate, low-income women. *Cancer*. 1996;78:1912-1920; (b) Williams MV, Baker DW, Parker RM, Nurss JR. Relationship of functional health literacy to patients' knowledge of their chronic disease: a study of patients with hypertension or diabetes. *Arch Int Med.* 1998;158:166-172; (c) Davis TC, Byrd RS, Arnold CL, Auinger P, Bocchini JA Jr. Low literacy and violence among adolescents in a summer sports program. *J Adolesc Health.* 1999;24:403-411; (d) Arnold CL, Davis TC, Berkel HJ, Jackson RH, Nandy I, London S. Smoking status, reading level, and knowledge of tobacco effects among low-income pregnant women. *Prev Med.* 2001;32:313-320.

Literacy and health outcomes

Persons with limited literacy skills have poorer health status than the rest of the population. Several studies in diverse settings have shown that even after controlling for sociodemographic variables, limited literacy skills and limited understanding of health concepts (ie, poor health literacy) are associated with worse health outcomes. This may be due to the aforementioned deficits in health knowledge as well as medication errors, poor understanding of medical instructions, and lack of self-empowerment.

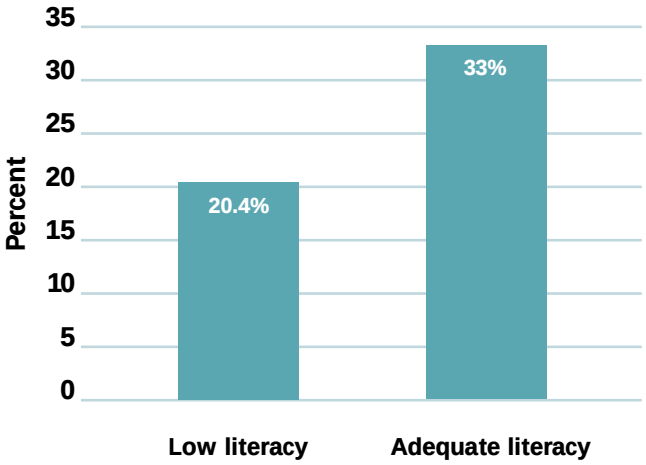
The relationship between limited literacy and poorer health is seen in all socioeconomic groups and in many disease states. For example, Medicare managed care enrollees (mostly older individuals) are 29% more likely to be hospitalized if they have limited literacy skills (Figure 2).[16] Medicaid enrollees with diabetes (mostly individuals with limited income) are less likely to have good diabetes control if they have limited literacy skills (Figure 3).[17] Persons with limited literacy skills also have more emergency department visits and generally worse health status than their more literate counterparts.[12,13]

Figure 2. Percentage of Medicare managed care enrollees requiring hospitalization over a 3-year period



Data from: Baker DW, Gazmararian JA, Williams MV, Scott T, Parker RM, Green D, et al. Functional health literacy and the risk of hospital admission among Medicare managed care enrollees. *Am J Public Health.* 2002;92:1278-1283.

Figure 3. Patients with tight diabetes control



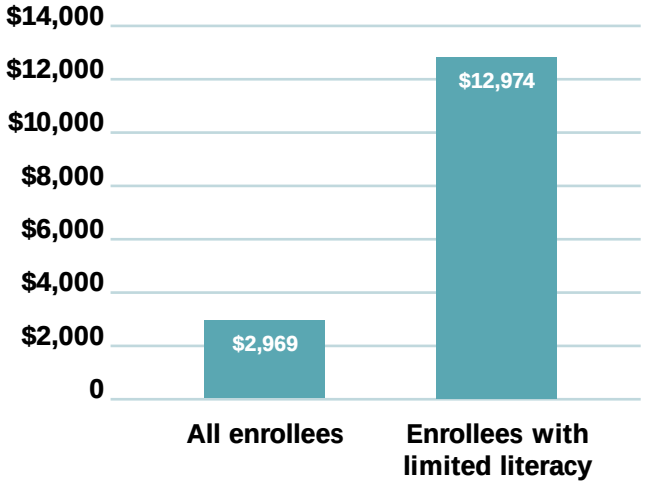
Tight diabetes control as defined as a glycated hemoglobin level ≤7.2%.

Data from: Schillinger D, Grumbach K, Piette J, Wang F, Osmond D, Daher C, et al. Association of health literacy with diabetes outcomes. *JAMA.* 2002;288:475-482.

Literacy and healthcare costs

The adverse health outcomes of low literacy translate into increased costs for the healthcare system. In one study, the average annual healthcare costs for all Medicaid enrollees in one state was $3,000 per enrollee, but the annual cost for enrollees with limited literacy skills averaged $13,000 (Figure 4).[18]

Figure 4. Annual healthcare costs of Medicaid enrollees



Derived from secondary analysis of the data from: Weiss BD, Blanchard JS, McGee DL, Hart G, Warren B, Burgoon M, et al. Illiteracy among Medicaid recipients and its relationship to health Care costs. *J Health Care Poor Underserved.* 1994;5:99-111.

The combination of medication errors, excess hospitalizations, longer hospital stays, more use of the emergency department, and a generally higher level of illness results in an estimated excess cost for the US healthcare system of $50 billion to $73 billion per year attributable to low literacy alone.[19] According to the Center for Health Care Strategies, this amount is equal to what Medicare pays for physician services, dental services, home healthcare, drugs, and nursing home care *combined*.[20]

Literacy and the law

The Joint Commission on Accreditation of Healthcare Organizations and the National Committee for Quality Assurance have both adopted guidelines specifying the need for patient education information and consent documents to be written in such a way that patients can understand them.[21,22] Accordingly, failure to provide understandable information to patients may be a negative factor in the accreditation status of a healthcare organization.

More compellingly, some legal experts indicate that clinicians and hospitals can be held liable for adverse outcomes suffered by patients who do not understand important health information needed for diagnosis and treatment.[23] This holds clinicians to the standard of providing patients with health information in a form that they can understand. For patients with limited literacy skills, clinicians need to deliver this information in a clear, plain-language format. In fact, clinicians can best serve their patient population by providing *all* patients with easy-to-understand information.

You can't tell by looking

You probably see patients every day who have trouble reading and understanding health information. Half of the adult US population has limited or marginal general literacy skills, and these individuals are likely to have limited health literacy skills as well. In addition, even persons with adequate literacy skills may have trouble understanding and applying healthcare information, especially when it is explained in technical, unfamiliar terms. Patients may be verbally articulate and appear well educated and knowledgeable yet fail to grasp disease concepts or understand how to carry out medication regimens properly.

Patients with limited health literacy can be difficult to identify. Even patients with limited general literacy skills do not always fall into predictable groups. The population groups listed in Table 6 are certainly at higher risk for limited literacy skills, but keep in mind that many patients within these groups actually have well-developed literacy skills. Conversely, many patients with limited literacy skills do not fall into any of the population groups listed in Table 6.

The important message is that you can't tell by looking whether someone has sufficient skills to adequately understand health concepts and carry out healthcare instructions. Because you can't tell just by looking, clinicians and medical practices can best deliver effective medical care by providing easy-to-understand information to all patients. Later in this manual, we will show you how you can do this.

Table 6. Key risk factors for limited literacy

- Elderly
- Low income
- Unemployed
- Did not finish high school
- Minority ethnic group (Hispanic, African American)
- Recent immigrant to United States who does not speak English
- Born in United States but English is second language

How can I tell if an individual patient has limited health literacy skills?

Red flags

While you can't tell by looking, some of your patients may drop clues, or "red flags," that they have limited health literacy skills. If your patients have ever filled out their registration forms or health questionnaires incompletely or incorrectly, or taken their medications the wrong way, they may have done so because of limited literacy skills or because they were not familiar with the medical terms and concepts in these forms. Other clues to limited literacy are listed in Table 7.

It important to understand, however, that the absence of such clues *does not* indicate that a patient has adequate health literacy. Most individuals with limited health literacy go undetected by the healthcare system. In fact, patients with limited general literacy skills go to great lengths to hide this from others, even going so far as to bring decoy reading materials with them to the clinician's office or handing articles about medications or treatments to their clinician. The majority of patients with limited literacy skills have never told anyone in the healthcare system, and most have never even told family members (Figure 5 on page 16).[24] Similarly, patients with well-developed literacy skills who fail to understand health information may also avoid asking questions for fear of appearing "stupid" or annoying the clinician.

In other words, you can't tell by looking *and* you can't expect your patients to tell you.

Table 7. Behaviors and responses that may indicate limited literacy

Behaviors

- Patient registration forms that are incomplete or inaccurately completed
- Frequently missed appointments
- Noncompliance with medication regimens
- Lack of follow-through with laboratory tests, imaging tests, or referrals to consultants
- Patients say they are taking their medication, but lab tests or physiological parameters do not change in the expected fashion

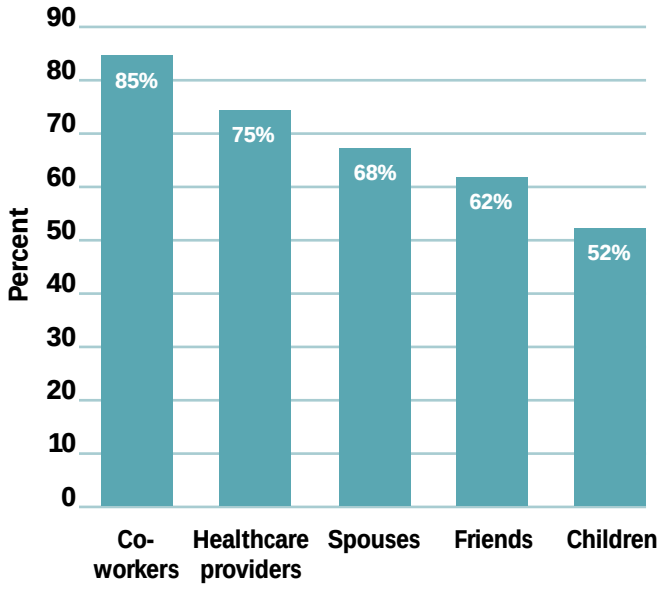
Responses to receiving written information

- "I forgot my glasses. I'll read this when I get home."
- "I forgot my glasses. Can you read this to me?"
- "Let me bring this home so I can discuss it with my children."

Responses to questions about medication regimens

- Unable to name medications
- Unable to explain a medication's purpose
- Unable to explain timing of medication administration

Figure 5. Nondisclosure of limited literacy



Histogram bars represent the percentage of persons with limited literacy skills who had never told coworkers, healthcare providers, spouses, friends, or their children about their limited literacy.

Data from: Parikh NS, Parker RM, Nurss JR, Baker DW, Williams MV. Shame and health literacy: the unspoken connection. *Patient Educ Couns.* 1996;27:33-39,

Social history

Some physicians have found it effective to add a question about literacy skills when taking a patient's social history. After asking about occupation and education, they add, "How happy are you with the way you read?" This question gives patients an opportunity to "open up" and discuss the issue if they desire.

The discussion that follows can lead the patient and clinician to agree on the importance of understanding health information, and on the need to find alternate ways for patients to learn what they need to know to care for themselves. It is essential that such discussions and, indeed, any questions about reading skills be conducted in a safe and supportive environment, and that all questions are asked in a neutral, nonjudgmental fashion.

Medication review

One of the most effective ways to identify patients who have limited health literacy skills is the "brown-bag medication review." At the time an appointment is made, ask the patient to bring in all medications (prescription and over-the-counter medications, nutritional and herbal supplements, etc). When the patient comes to the office, the clinician or medical assistant can conduct the medication review by asking the patient to name each medication and explain its purpose and how it is taken.

As patients respond to these questions, note whether they identify medications by reading the label or by opening the bottle and looking at or pouring the pills into their hand. Identifying the medication by looking at the pills may be a clue to limited literacy skills. When responding to questions about how to take the medication, the patient may have

memorized instructions, such as "Take one pill three times per day." However, when you probe further with questions such as "When was the last time you took one of these pills?" and "When was the time before that?" the patient's confusion may become apparent.

Measuring health literacy

Although it is not practical to formally measure the health literacy skills of your patients, there are ways to do so. The following two measures are frequently used in health literacy research.

REALM

A patient's literacy level can easily be measured in about two minutes with an instrument called the Rapid Estimate of Adult Literacy in Medicine (REALM).[25] The REALM is a word recognition test, in which subjects read from a list of 66 medical words arranged in order of complexity by the number of syllables and pronunciation difficulty. Patients are asked to read aloud as many words as they can, beginning with the first word and continuing through the list as far as possible until they reach words they cannot pronounce correctly. The REALM yields a score that estimates a patient's reading level (ie, grades 0–3, grades 4–6, grades 7–8, grade 9 and above). Patients who score in grades 0–3 and 4–6 have literacy skills that correspond approximately to NALS levels 1 and 2, respectively. Because the REALM uses medical words, the test provides not just an assessment of general reading skills, but also an indication of the individual's health literacy. The main limitations of the REALM are that it is available only in English and that it tests word recognition, not reading comprehension.

TOFHLA

The Test of Functional Health Literacy in Adults (TOFHLA), which is available in both English and Spanish,[26] is widely used in health literacy research. The TOFHLA provides patients with medical information or instructions (eg, instructions on a prescription label or instructions for preparing for a diagnostic procedure). Patients then respond by answering questions that test their understanding of the information or instructions they have received. Scores on the TOFHLA categorize patients into those with low, marginal, or adequate health literacy skills. The TOFHLA takes longer to administer than the REALM. A short form of the TOFHLA is available, however, and an ultrashort version is under development.

Strategies to enhance your patient's health literacy

While there is little that clinicians can do to boost the general literacy skills of their patients, there are strategies they can carry out to enhance their patients' health literacy. By making their practices more patient-friendly, communicating in easy-to-understand language, and creating and using patient-friendly written materials, clinicians can deliver more effective care to all of their patients.

Making your practice patient-friendly

Imagine that you are one of the nearly 50% of adults in the United States that has NALS level 1 or level 2 literacy skills. You can't read and understand an article in a newspaper. You can't fill in a government application for Social Security, Medicare, or Medicaid benefits. You can't follow a bus schedule or a map. You don't really understand what a cancer-screening test is, or the meaning of words like "rectum," "tumor," "prostate gland," or "mammogram." Perhaps English is your second language.

Imagine also that you, the patient, are coming to visit *your* practice for the first time today.

- What will you find there?
- What paperwork will the staff ask you to produce or complete?
- What rules and procedures will they ask you to follow?
- What kinds of paperwork will you receive if you are referred for ancillary tests or consultations with other clinicians, and how will you find your way to those tests and consultations?
- Will you receive handouts and consent forms?
- If so, will you be able to understand them (Figure 6)?
- What do you know about your medical insurance coverage, assuming, of course, you are not one of the 42 million Americans without medical insurance?

Figure 6.

Your naicisyhp has dednemmocer that you have a ypocsonoloc. Ypocsonoloc is a test for noloc recnac. It sevlovni gnitresni a elbixelf gniweiv epocs into your mutcer. You must drink a laiceps diuqil the thgin erofeb the noitanimaxe to naelc out your noloc.

The text above, which provides basic information about colonoscopy, provides a sense of what it might be like for a person with limited literacy skills to read a handout similar to those you may give to patients in your office.

Individuals with limited literacy skills prefer information that has short words and short sentences and that contains only essential information. Long or unfamiliar words (written backwards in the example above) are often difficult to decipher. Difficult words slow down reading speed and, as a result, decrease understanding. Similar concerns apply to oral communication — simple, plain language is the best way to communicate.

Table 8. Checklist for patient-friendly office procedures

- Exhibit a general attitude of helpfulness.

- When scheduling appointments:
  - Have a person, not a machine, answer the phone.
  - Collect only necessary information.
  - Give directions to the office.
  - Help patients prepare for the visit. Ask them to bring in all their medications and a list of any questions they may have.

- Use clear and easy-to-follow signage.

- Ask staff to welcome patients with a general attitude of helpfulness.

- During office check-in procedures:
  - Provide assistance with completing forms.
  - Collect only essential information.
  - Provide forms in patients' languages.
  - Provide forms in an easy-to-read format.

- When referring patients for tests, procedures, or consultations:
  - Review the instructions.
  - Provide directions to the site of referral.
  - Provide assistance with insurance issues.

- When providing patients with information:
  - Routinely review important instructions.
  - Provide handouts in an easy-to-read format.
  - Use nonwritten modalities.

This section of the manual provides suggestions and tips for making your practice more patient-friendly. These tips are summarized in Table 8. While the paragraphs above portray a patient with limited general literacy skills, the tips in this section will benefit *all* the patients in your practice.

Attitude of helpfulness

A general attitude of helpfulness from you and other members of your staff can go a long way towards helping your patients feel comfortable in your practice. This attitude starts from the top. Through example, clinician leaders and office managers can encourage all employees to help patients feel comfortable asking questions about office procedures and their medical care. Although everyone is involved, one of the most important individuals is the person the patient encounters first — the receptionist.

To advertise an attitude of helpfulness to your patients, it may be useful to have all members of the office staff — including the clinicians and clerical staff — wear a button that states, "Ask me I can help" (Figure 7).

Figure 7. "Ask me I can help" pin

Scheduling appointments

When patients call the office to make an appointment, a person should answer the phone — not a machine asking the patient to select numerical options. Ideally, the person answering the phone should be able to converse with the patient in the patient's preferred language.

Information collected on the phone should include only what is needed to process the appointment and expedite office flow. It should omit nonessential information that duplicates what others will ask later.

Ask if the patient needs directions to the office. For first-time patients, offer to mail, fax, or e-mail directions to the office.

Finally, help patients prepare for the visit by asking them to bring in all their medications and to make a list of the questions they wish to ask. Let them know that they are welcome to have someone accompany them to the visit and be a part of the discussion.

Office check-in procedures

Office check-in procedures — particularly the completion of registration forms and health questionnaires — often present an obstacle for patients with limited general and health literacy skills. The next time you receive a patient registration form that is incomplete or incorrectly completed, consider that the patient may have had difficulty completing the form.

The solutions to this problem are simple and beneficial to *all* patients who have difficulty completing registration forms (persons with limited literacy, as well as persons with vision deficits, tremors, etc). They are summarized in Table 9.

Table 9. Tips for assisting patients with registration forms

- Routinely offer all patients assistance in completing their forms.
- Collect only information that is essential.
- Collect information and/or provide assistance in the patient's preferred language.
- Be sure forms are designed in a reader-friendly format.

First, and perhaps most importantly, office staff should routinely offer all patients the opportunity to have someone assist them in completing registration forms. This can be done by stating, "Some of these forms can be difficult to fill out. If you need help with them, please don't hesitate to ask me." Assistance should be provided in a confidential manner. Patients should be brought to a cubicle or empty exam room so that they will not have to discuss their health problems, financial status, or other personal matters aloud in the waiting area.

Second, registration forms should be simple and request only necessary information. For example, if a nurse or physician will later ask a patient about medication allergies, there may be no added value in having the patient provide this information on the registration form. Similarly, if office staff asks for and photocopies an insurance card, there may be no reason to have the patient complete insurance information on a registration form. Asking patients for unnecessary information serves no good purpose and intimidates patients who find it difficult to provide this information.

Third, information should be collected in a patient's preferred language whenever possible. Forms should be provided in the patient's preferred language, or someone who speaks the patient's preferred language should be available to provide assistance.

In addition to the three aforementioned recommendations, make certain that the physical appearance and format of the registration form comply with the principles of easy-to-read patient materials. These principles are presented later in the manual (page 31).

Referrals and ancillary tests

When patients are sent for blood tests and imaging studies, or are referred to other clinicians for consultations, treatments, or procedures, they are often handed a piece of paper and told to "make an appointment." For many patients, and especially those patients with limited literacy skills, making that appointment can be a daunting task. Again, imagine you are the patient with limited literacy skills. You, as the patient, must read the referral instructions, then call and make an appointment in another practice that may have its own registration system and forms to complete. You also need to determine if insurance coverage will pay for this service, and complete additional paperwork for the insurance company. Then you will need to follow preappointment instructions, which could include bowel preparation for a colonoscopy or proper adjustment of medications before a procedure. Finally, you will need to find your way to the site of the consultation or procedure and arrive at the correct time.

Most clinicians have dealt with tasks such as these and know they can be frustrating. For a patient who is a NALS level 1 reader, these tasks may be overwhelming.

The solutions to this problem are straightforward. Any written instructions should be clear, simple, and, as directed in the next section (page 31), written in easy-to-understand language and format. Office staff should verbally review instructions with patients and check that patients understand them. It is a good idea to read written information aloud rather than assume that your patients can read and understand the information on their own.

Complicated procedures (eg, bowel preparation) should be reviewed in detail, as should directions to the referral site. It can be useful to have a map on the back of referral forms, appointment notices, and test requisition slips, so that the directions can be highlighted and reviewed with the patient. Business office staff should be available to assist patients with issues related to insurance coverage.

Improving interpersonal communication with patients

Clinician-patient communication is an important factor in health literacy. Good communication is crucial for a successful clinician-patient relationship and effective exchange of information. Breakdowns in communication can lead to confusion for patients, poor health outcomes, and even malpractice lawsuits against clinicians.

Communication and malpractice lawsuits

Poor communication between patients and clinicians is a major factor leading to malpractice lawsuits. In fact, attorneys estimate that a clinician's communication style and attitude are major factors in nearly 75% of malpractice suits.[27] The most frequently identified communication errors are inadequate explanations of diagnosis or treatment and communicating in such a way that patients feel that their concerns have been ignored (Table 10).[28-30]

Table 10. Clinician-patient communication problems involved in malpractice lawsuits

- Explanation of diagnoses is inadequate.
- Explanation of treatment is inadequate.
- Patient feels ignored.
- Clinician fails to understand perspective of patient or relatives.
- Clinician discounts or devalues views of patients or relatives.
- Patient feels rushed.

Sources: (a) Vincent C, Young M, Phillips A. Why do people sue doctors? A study of patients and relatives taking legal action. *Lancet.* 1994;343:1609-1613; (b) Hickson GB, Clayton EW, Githena PB, Sloan FA. Factors that prompted families to file medical malpractice claims following perinatal injuries. *JAMA.* 1992;267:1359-1363; (c) Hickson GB, Clayton EW, Entman SS, Miller CS, Githens PB, Whetten-Goldstein K, et al. Obstetricians' prior malpractice experience and patients' satisfaction with care. *JAMA.* 1994;272:1583-1587.

Communication and medical outcomes

Studies have shown that effective communication with patients has a beneficial effect on medical outcomes. These benefits include lower rates of anxiety, pain, and psychological distress, and higher rates of compliance and symptom resolution.[31]

In particular, it has long been known that compliance is heavily influenced by communication style. Specifically, clear and concise instructions delivered to patients by clinicians the patients trust are associated with improved rates of compliance with therapy.[32]

Steps to improve communication with patients

There is little research to guide us on how best to communicate with patients who have limited literacy skills. Nonetheless, there is general consensus among health literacy and communication experts that six basic steps can help you improve communication with patients (Table 11).[33,34]

Slow down

Communication is improved — and the risk of malpractice claims is decreased — when clinicians spend more time with patients. Only a small amount of time is needed to make a difference. Data from multiple states in the United States indicate that primary care physicians who have been the target of malpractice liability claims spend an average of 15 minutes per patient on routine visits, while physicians who have never had a malpractice claim against them spend an average of 18 minutes. This is a difference of a mere three minutes.[35]

Table 11. Six steps to improve interpersonal communication with patients

1. Slow down.
   Communication can be improved by speaking slowly and by spending just a small amount of additional time with each patient. This will help foster a patient-centered approach to the clinician-patient interaction.

2. Use plain, nonmedical language.
   Explain things to patients as you would explain them to a family member.

3. Show or draw pictures.
   Visual images can improve the patient's recall of ideas.

4. Limit the amount of information provided, and repeat it.
   Information is best remembered when it is given in small pieces that are pertinent to the tasks at hand. Repetition further enhances recall.

5. Use the teach-back or show-me technique.
   Confirm that patients understand by asking them to repeat back your instructions.

6. Create a shame-free environment.
   Make patients feel comfortable asking questions. Enlist the aid of others (patient's family, friends) to promote understanding.

In addition to spending more time, clinicians can optimize the use of this time by creating a "patient-centered visit." In a patient-centered visit, the clinician focuses on addressing the patient's concerns. Such patient-centered visits take no longer than "traditional" visits, in which the agenda is set by the clinician.[36] Behaviors, such as sitting rather than standing, listening rather than speaking, and speaking slowly, can further create an impression that you are focused on the patient. Patients may respond to these behaviors by perceiving that you have spent more time with them. These and other useful behaviors are listed in Table 12.

Table 12. Behaviors that improve communication

- Use orienting statements: "First I will ask you some questions and then I will listen to your heart."
- Ask patients if they have any concerns that have not been addressed.
- Ask patients to explain their understanding of their medical problems or treatments.
- Encourage patients to ask questions.
- Sit rather than stand.
- Listen rather than speak.

Clinicians often express concern that a patient-centered approach results in a substantial increase in the duration of office visits; research shows otherwise. In one important study, patients who were allowed to talk without interruption for as long as they liked spoke for an average of only one minute and 40 seconds.[37] In another study, patients were permitted to voice their initial concerns at the beginning of an office visit, again for as long as they wished without interruption. The mean spontaneous talking time was only one minute and 32 seconds, with a median value of 59 seconds.[38]

While patient-centered visits do not take substantially longer than traditional visits, they create an atmosphere in which patients feel that their needs have been met. This aids in the development of an effective patient-clinician alliance, with potential benefits such as increased patient compliance and decreased risk of malpractice suits.

Use plain, nonmedical language

You should always seek to use plain, nonmedical language when speaking to patients. Words that clinicians use in their day-to-day conversations with colleagues may be unfamiliar to the majority of nonmedically trained persons. A good approach is to explain things to patients in language that you might use when talking to your own family member. This is sometimes called "living-room language," "the language of the family," or conversational language. Table 13 gives some examples of plain-language alternatives to medical words. Conversational language creates opportunities for dialogue between the clinician and patient, rather than limiting communication to a monologue by the physician.

Table 13. Medical terms that patients may not understand

Medical term	Translation into plain language
• Analgesic	Pain killer
• Anti-inflammatory	Lessens swelling and irritation
• Benign	Not cancer
• Carcinoma	Cancer
• Cardiac problem	Heart problem
• Cellulitis	Skin infection
• Contraception	Birth control
• Enlarge	Get bigger
• Heart failure	Heart isn't pumping hard enough
• Hypertension	High blood pressure
• Infertility	Can't get pregnant
• Lateral	Outside
• Lipids	Fats in the blood
• Menopause	Stopping periods, change of life
• Menses	Period
• Monitor	Keep track of, keep an eye on
• Oral	By mouth
• Osteoporosis	Soft, brittle bones
• Referral	Send you to another doctor
• Terminal	Going to die
• Toxic	Poisonous

Show or draw pictures to enhance patient understanding and recall

The expression "A picture is worth a thousand words" is particularly true when communicating with patients who may have trouble understanding medical concepts delivered in words. It has long been known that visual images are remembered better than letters and words.[39] That is why we often recall a person's face but not a name, or the picture on a book's cover but not the name or author of the book.[40]

The most effective pictures are simple ones. For example, if you are trying to explain that an aortic valve needs to be replaced, the illustration should display a heart, an aorta, and an aortic valve. Additional details, such as coronary arteries and other heart valves, should not be included if they are irrelevant to the patient's health problem. Inclusion of irrelevant details distracts the patient and diminishes the effectiveness of the picture as a teaching tool.

Limit the amount of information given at each visit — and repeat it

Another key to effective communication is to limit the amount of information provided to patients at each visit. This does not mean you should withhold important information. Rather, it means you should focus your communication on the one or two most important things a patient needs to know at the time of the visit. The principle behind this approach is that advice is remembered better, and patients are more likely to act on that advice, when it is given in small pieces and is relevant to the patient's current needs or situation.[40]

For example, at a patient's first visit following a diagnosis of type 2 diabetes, the most important message is that "the sugar level in your blood is high, and you must start taking medicine to lower the sugar level." Information about the physiology of glucose control, while ultimately important for the patient's ability to self-regulate diabetes control, is not important at the first visit and should not be discussed at that time. Information about potential complications of diabetes might be mentioned, but they are not the focus of the visit. The focus of the first visit should be the initiation of treatment.

After discussing the key information with a patient, the information should be reviewed and repeated, because repetition is the key to learning and memory. Ideally, the information will be reviewed and repeated by multiple members of the healthcare team, perhaps by a physician, nurse, pharmacist, dietitian, and others.

Repetition can be achieved even after the patient's visit through handouts to reinforce the information provided in person. Consider reading handouts to patients to emphasize the importance of the information. If the handout is too long to read aloud, it may be too complex. Preparation of reader-friendly handouts will be discussed later in more detail (page 31).

Some experts suggest calling patients several days after delivering important information to further reinforce learning.[41] While not routinely necessary, such phone calls can be helpful for reinforcing particularly important information. When making this phone call, try not to make it seem that you are calling only to repeat the instructions. Rather, make it clear that you want to help by stating, "I am calling to check that everything I told you was clear, and to find out how are you doing with the treatments I recommended."

Use the teach-back and show-me techniques

The teach-back and show-me techniques are methods for ensuring that patients understand what you have told them (Table 14). These techniques involve asking patients to explain or demonstrate what they have been told. For example, you can say, "Now I want you to explain to me how you will take your medication, so I can be sure I have explained everything correctly," or, "Please show me how you will use the asthma inhaler, so I can be sure I have given you clear instructions."

Table 14. The teach-back/show-me techniques

- Do not simply ask a patient, "Do you understand?"
- Instead, ask patients to explain or demonstrate how they will undertake a recommended treatment or intervention.
- If the patient does not explain correctly, assume that you have not provided adequate teaching. Reteach the information using alternate approaches.

Using these techniques, clinicians take responsibility for adequate teaching. If patients cannot explain or demonstrate what they should do, the clinicians must assume that they have not provided patients with an adequate explanation or understandable instructions. The result should be new efforts to ensure that patients learn what they need to know. It is important not to appear rushed, annoyed, or bored during these efforts — your affect must agree with your words.

The teach-back and show-me techniques should replace the more common practice of simply asking a patient, "Do you understand what I have told you?" Experience shows that patients often answer "yes" to such questions, even when they understand nothing.

Incorporating these techniques into patient counseling and education creates the opportunity for dialogue in which the physician provides information, then encourages the patient to respond and confirm understanding before adding new information.

Create a shame-free environment: Be respectful, caring, and sensitive

As discussed earlier, patients with limited literacy are often ashamed of this limitation and rarely speak of it.[24] Even patients with well-developed literacy skills may feign understanding material to avoid seeming "stupid" or annoying to the clinician. To foster effective communication with patients, it is essential to create a shame-free environment in which patients feel comfortable asking questions about what they do not understand.

This can be accomplished by letting patients know that "many people have difficulty reading and understanding the medical information I give them, so please feel comfortable asking questions if there's something you don't understand." Make certain to follow up on this by answering any questions your patients may have.

Another strategy is to ask patients during the visit if they would like a family member or friend to be with them during discussions about diagnoses and options for treatment. Research shows that patients with limited health literacy often seek the assistance of family or friends after visits with clinicians to interpret what their clinicians told them.[42] By asking your patients in a routine, nonjudgmental way, you can help them feel comfortable about bringing others into the examination room to help at the time of the visit.

Creating and using patient-friendly written materials

Written consent forms and patient education handouts

The readability of consent forms and patient education handouts has received more attention than perhaps any other health literacy issue. Countless studies have shown there is a mismatch between patients' reading skills and the reading skills needed to comprehend the consent forms and handouts they are given.[43-46] The reality is that most consent forms and patient education handouts are written at a difficulty level that far exceeds the reading skills of average Americans. In fact, most consent forms and handouts are written at 10th grade to graduate school level, even though the average US adult reads at an 8th grade level.

Medical practices should ensure that the reading difficulty level of their patient materials matches the reading skills of their patients. Clinicians can use a variety of approaches to reach this goal. One approach is to develop practice-specific written materials. The principles for how to do this are discussed and shown in Table 15 (page 32).

Alternatively, clinicians can purchase materials that have already been developed on the basis of these principles. Such reader-friendly written materials may be found through the list of useful resources on page 44.

Whatever written materials are used, their effectiveness may be increased if the clinician or staff member reads them aloud and highlights, underlines, circles, or numbers key points for the patient to remember. Drawing supplemental pictures and writing out steps and directions for individual patients can also be helpful.

Principles for creating patient-friendly written materials

Written materials that are easy for patients to read and understand are beneficial to *all* patients. Evidence indicates that all patients — not just those with limited literacy skills — prefer easy-to-read materials to more complex or comprehensive materials.

The basic principles (Table 15 on page 32) for creating patient-friendly written materials involve attention to:

a) the depth and detail of the content

b) the complexity of the text itself

c) the format in which the material is prepared

d) user testing

Table 15. Formatting checklist for easy-to-read written materials

General content

- Limit content to one or two key objectives. Don't provide too much information or try to cover everything at once.
- Limit content to what patients really need to know. Avoid information overload.
- Use only words that are well known to individuals without medical training.
- Make certain content is appropriate for age and culture of the target audience.

Text construction

- Write at or below the 6th grade level.
- Use one- or two-syllable words.
- Use short paragraphs.
- Use active voice.
- Avoid all but the most simple tables and graphs. Clear explanations (legends) should be placed adjacent to each table or graph and also in the text.

Fonts and typestyle

- Use large font (minimum 12 point) with serifs. (Serif text has the little horizontal lines that you see at the bottom of letters, as in the title of this table.)
- Don't use more than two or three font styles on a page. Consistency in appearance is important.
- Use uppercase and lowercase text. ALL UPPERCASE TEXT IS HARD TO READ.

Layout

- Ensure a good amount of empty space on the page. Don't clutter the page with text or pictures.
- Use headings and subheadings to separate blocks of text.
- Bulleted lists are preferable to blocks of text in paragraphs.
- Illustrations are useful if they depict common, easy-to-recognize objects. Images of people, places, and things should be age appropriate and culturally appropriate to the target audience. Avoid complex anatomical diagrams.

The practical application of these principles is reviewed in the paragraphs that follow. Readers who desire more detailed information on creating easy-to-read written materials for patients can consult standard textbooks[47-49] on creating effective patient-education information, or attend seminars or workshops offered by experts in the field. (See Useful resources on page 44.)

Depth and detail of the message

Effective patient materials focus on instructions for key behaviors that the patient must put into action — not lengthy and unnecessary background information about physiology and pathology. Many patient education brochures are ineffective because they begin with a review of anatomy and physiology rather than with clear statements about what a patient needs to do.

Figure 8A. Inappropriate detail and prioritization of information in a patient education handout

Streptococcal pharyngitis (strep throat)

Your doctor has diagnosed you as having streptococcal pharyngitis, or "strep throat." Strep throat is caused by Group A beta hemolytic streptococcus, a common bacteria in the nose and throat that can cause sore throats (pharyngitis) and skin infections. Symptoms of strep throat include pain and redness in the throat, difficulty swallowing, fever, and swollen glands in the neck. Sometimes there is a rash going along with the sore throat, in which case patients are said to have "scarlet fever." Strep throat occurs most commonly in children.

The symptoms of strep throat go away by themselves, even without treatment. Without treatment, however, a small percentage of patients with strep throat will develop rheumatic fever, a serious disease of the heart and heart valves. When patients get rheumatic fever, heart valves may be damaged and in the future, the patient may need open heart surgery to replace a heart valve. Although rheumatic fever is uncommon, in recent years there have been more cases reported.

The treatment for strep throat involves taking penicillin, an antibiotic that kills the streptococcus bacteria. The reason for treating strep throat is not to make the sore throat get better quicker. Rather, the reason for treating strep throat is to prevent the development of rheumatic fever. Treatment with penicillin for 10 days almost always prevents rheumatic fever. It is important that you take the penicillin for the full 10 days, even if you are feeling better before the medicine is used up. That's because taking the penicillin for less than 10 days may not protect you against rheumatic fever. Patients allergic to penicillin can take one of several other medications.

(274 words; 10th grade reading level)

Examples of appropriate and inappropriate detail for patient education handouts are shown in Figures 8A (page 33) and 8B.

Figure 8B. More appropriate detail and prioritization of information in a patient education handout

Treating strep throat

- Take your pills two times each day (once in the morning and once in the evening).
- Take the medicine every day for 10 days, even if you feel better before then.
- Stopping the pills before 10 days can result in serious heart problems.

(43 words; 6th grade reading level)

Note that the more reader-friendly text in Figure 8B is not an example of "dumbing down" the information. Rather, it is an example of effective application of the principles for creating written patient education materials in a form that all patients prefer (ie, focusing on what the patient needs to know and put into action, while avoiding medical terminology and unnecessary background information).

Complexity of text

Written materials should ideally be created for readability at the 5th or 6th grade level, thus ensuring readability by the majority of adults. The reading level should be even lower — ideally at the 3rd to 5th grade level for practices with a high percentage of patients at risk for limited literacy. The average reading skill of Medicaid enrollees, for example, is at the 5th grade level.

Text written at the 5th or 6th grade level typically is constructed of short words, all or most of which are one or two syllables long. Sentences should be as short as possible, and complex or multipart sentences should be avoided. Paragraphs should contain no more than two or three sentences. Many healthcare professionals find it difficult to construct text at such a basic level, but as shown in the example in Figure 8B, it is possible to do so.

Most word processing programs on personal computers contain grammar checking programs that include a tool for measuring readability. A widely used tool is the Flesch-Kincaid readability score, which is integrated into the grammar checker of Microsoft Word. The Flesch-Kincaid reports readability as a grade equivalent reading level and is a useful guide for measuring complexity of text. However, two caveats must be considered:

- First, the Flesch-Kincaid score is based on the physical characteristics of the text. Specifically, the score is based on word length (ie, the number of characters between spaces) and sentence length (ie, the number of words between periods). Thus, the Flesch-Kincaid will compute a reading level even for nonsensical text such as "Xxx xxxxx x xxxxx. Xxx xxxx xxxx xxxxxxx xxx xxxxxx." Furthermore, the program counts anything before a period as a sentence, thus skewing results if one is not careful. For example, "Dr." is counted as one sentence.
- Second, the readability score does not consider content. An individual with medical training may easily understand medical text written at a certain grade level, but that same text may be incomprehensible to someone with similar reading skills but no medical training.

To ensure that the content of written materials is understandable, the text must use words that are well known to readers. Authors should avoid technical words or jargon, and use and define medical words only when they are essential. Table 13 (page 27) presents some common medical terms and jargon, along with suggestions for "plain language" alternatives. Additional examples are shown in Table 16 (page 36). While most of the suggested alternate wording seems obvious, clinicians regularly use the medical terms in conversations with patients.

Format

Format is one of the most critical characteristics of reader-friendly patient education materials. Written material is difficult to read when it contains text that is dense, small, or presented in long, uninterrupted paragraphs. Material is easier to read when text is larger and interspersed with blank space.

Readability is further enhanced when information is presented or supplemented with bulleted lists and clear illustrations. Table 15 (page 32) presents a checklist of important formatting suggestions that should be considered when creating written information for patients. The examples shown, in Figures 8A (page 33) and 8B give a sense of what constitutes good and bad formatting.

User testing

After creating written material for patients according to the guidelines in Table 15 (page 32), it is useful to have the materials reviewed by patients — ideally patients with limited literacy skills — to ensure that what you have prepared can be understood.

The user-testing process is more than simply asking patients, "Do you like it?" or "Does it make sense?" Rather, it involves asking patients, "After reading this, can you tell me what you are supposed to do?" and "What does this word or phrase mean to you?" and then adopting the patient's language in the text. Appropriate modifications should be made in response to reviewer feedback before the written material is put into use.

Table 16. More examples of common medical terms and jargon and suggestions for alternate wording

Medical terms or jargon	Alternate wording
• Cardiologist	Heart doctor
• Catheterize	Put in a tube where your urine comes out
• Chemotherapy	Drugs to treat cancer
• Echocardiogram	Pictures of your heart
• Fractured femur	Broken hip/leg
• GI specialist	Stomach doctor
• Malignancy	Cancer
• Metastatic	Cancer has spread
• Noninvasive	Without surgery, needles, or cutting skin
• Pulmonary embolism	Blood clot in your lung
• Radiology	X-ray department
• Tap your knee	Put a needle in your knee to remove fluid

Nonwritten patient education materials

While a great deal of attention focuses on written materials suitable for low-literacy audiences, nonwritten materials can also be effective patient education tools. These nonwritten materials include graphic illustrations, such as pictures, pictographs, and models, along with audiotapes, videotapes, and various forms of computer-assisted learning applications (Table 17). There is increasing research to support the effectiveness of these nonwritten modalities, which may even be superior to written materials for patients with limited literacy.

Table 17. Alternatives to written handouts for patient education handouts

- Graphic illustrations
  - Pictures
  - Pictographs
  - Models
- Audiotapes and compact disks
- Videotapes
- Information-only computer modalities
  - CD-ROMs
  - Downloadable Internet sites
- Interactive computer modalities
  - Interactive CD-ROMs
  - Interactive Internet sites

Graphic illustrations (pictures, pictographs, models)

Research has shown that using models and pictures, including cartoons or pictographs with verbal explanations, can greatly increase patient understanding and retention of information. In one study, mean correct recall of information was 85% with pictographs and 14% without.[50] Another study found that patients receiving wound-care instructions with cartoons were able to answer questions correctly 46% of the time three days later, compared to only 6% of patients who received only written instructions.[51]

Audiotapes and compact disks

Most patients own an audiocassette or compact disk (CD) player. Providing patients with audiocassettes or CDs is often an easy way to repeat and reinforce healthcare messages given during office visits. For example, patients who have just been diagnosed with a disease or who are embarking on a new treatment can be given an audiotape or CD that provides a brief summary of their disease or treatment.

Audiotapes and CDs should be no more than a few minutes long. They can be recorded by individual clinicians or purchased from companies that prepare such recordings. If prepared by the clinician, it is essential to practice the principles discussed earlier. In other words, the recording should use plain language and focus on only one or two key topics. There should be an emphasis on what the patient needs to know to execute the clinician's recommendations.

Videotapes

A quick search on the Internet reveals that there are hundreds, perhaps thousands, of patient education videotapes available for purchase from commercial and noncommercial sources. Many pharmaceutical companies have prepared patient education videotapes about their key products, and these tapes are often available at no charge to clinicians or patients. Similarly, many professional organizations have created educational materials pertinent to specific diseases and treatments. While it is beyond the scope of this manual to review the quality of the thousands of available videotapes, many are worth exploring.

Computer-assisted education

Computer-assisted education has been created for patients with asthma, diabetes, heart failure, cancer, and many other diseases. Some of these computer-assisted modalities are provided to patients via Internet downloads or CD-ROMs they can use in home computers. Others are available for use by patients in a clinician's office. Of note, they have been used successfully by patients who have no prior experience using computers.

As an example, one computer-based program is an interactive diabetes simulator that patients use to learn the effects of diets and insulin on blood glucose profiles.[52] Over 74,000 visits have been logged to the site, and 20,000 copies of the free program have been downloaded by users, most of whom rated the simulator favorably.

Another program uses CD-ROM technology to help patients with prostate cancer decide on the preferred treatment for their disease.[53] When the program was tested with a group of patients who had limited literacy skills, more than two thirds of the patients were able to select a treatment for their cancer. There was, however, some question about how effectively the program improved the knowledge of patients with the very lowest level of literacy skill.

Still other programs have been used to provide patients with information about colonoscopy,[54] asthma,[55] and heart failure.[56] Yet another program teaches patients who have had malignant melanoma about skin protection and identification of new skin lesions.[57]

While results are not uniformly positive, most studies find a benefit to using interactive educational tools. Some patients may even learn better with computer-assisted modalities than with standard modalities. Clinicians should be aware that these new tools are available and consider them viable alternatives to standard written materials. It is important, however, to confirm that patients have correctly understood information obtained from these sources, as much online information is written at advanced reading levels.

Final comments

When working with patients, you must use your communication skills to ensure that each patient provides you with the information you need to formulate a treatment plan, and that he or she has all the information needed to execute this treatment plan. There are five main categories of information, each of which is listed in Table 18 (page 40). If your patients can answer all of these questions when they leave your office, you have done a good job.

As we have discussed in this manual, the patient's limited literacy and the clinician's communication skills are both important factors in health literacy. By being aware of this and applying the principles of good communication, clinicians can be "good doctors" to *all* patients. As stated by an adult with limited literacy skills:

"A good doctor is not too busy to help, doesn't use big words, sits down and listens, asks how you are doing and what is your problem. The doctor asks how you want to be addressed, and doesn't read the chart in front of you (if he does, it shows he hasn't prepared for your visit, which is rude and demeaning). Good doctors tell you things in plain English and break them down into what's really important. If you don't understand what the doctor says, you are comfortable asking him to repeat the explanation. When the doctor repeats and you still don't understand, the doctor goes out of his way to make sure you do."

Table 18. Checklist for patient understanding

At the end of each office visit, a patient should be able to answer the following questions:

- What health problems do I have and what should I do about them?
- Where do I go for tests, medicine, and appointments?
- How should I take my medicine?
  - When do I take it?
  - What will it do?
  - How do I know if it is working?
  - Whom do I call for if I have questions?
- Other instructions
  - What to do?
  - How to do it?
  - When to do it?
- Next steps
  - When do I need to be seen again?
  - Do I have another appointment? If so, what are the date and time of the appointment?
  - Are there phone numbers to call?

Case discussions

This section offers a series of study questions based on the vignettes on the accompanying videotape and CD-ROM.

Case 1: Mr. Day

Patient who misunderstands the term hypertension

Mr. Day clearly misunderstands the meaning of the word hypertension, believing it refers to a state of behavioral hyperactivity rather than to elevated blood pressure. His physician takes responsibility for this misunderstanding and explains the meaning of hypertension to the patient.

Issues for discussion:

1. How could you explain the meaning of hypertension to Mr. Day in easy-to-understand language? How could you make certain he understands the meaning?
2. What other common diagnoses or medical terms could easily be misunderstood by patients?
3. What did Mr. Day's physician achieve by accepting responsibility for his misunderstanding?

Case 2: Mrs. Cordell-Seiple

Patient who discusses her hysterectomy

Mrs. Cordell-Seiple talks about her experience signing a surgical consent form without reading it and then undergoing surgery — only to find out after the surgery that she has had a hysterectomy. Dr. Williams points out that when patients sign surgical consent forms they do not understand, then undergo procedures that result in adverse outcomes, there is potential for medicolegal liability.

Issues for discussion:

1. Is it reasonable to assume that when patients sign consent forms, they have read and understood them? Why or why not?
2. What could Mrs. Cordell-Seiple's physician have done to ensure that she understood her treatment?
3. If you were the patient's malpractice attorney, what arguments would you make in developing a case against the patient's surgeon and the hospital?

Case 3: Mr. Bell

Patient who hides his illiteracy

Mr. Bell speaks about his fear of having others find out he is illiterate, and about his anger and tendency to blame others for not respecting him. He sometimes walks out of the doctor's office to hide the fact that he cannot read.

Issues for discussion:

1. If you had not heard Mr. Bell's story, would you have considered him a "difficult" patient?
2. Do you see patients like Mr. Bell in your practice? How do you and your staff respond to them?
3. How could you change your office practices to support patients like Mr. Bell and help defuse their anger and frustration?

Case 4: Mrs. Grigar

Patient who is unable to fill out a satisfaction questionnaire

Dr. Alvarez has a discussion with Mrs. Grigar about how she was unable to fill out the satisfaction questionnaire. Some patients may be able to fill these forms out but may do so incorrectly or incompletely.

Issues for discussion:

1. What might you see on a registration form or health questionnaire when a patient with limited literacy skills fills in the blanks?
2. Have you ever seen forms in your practice filled out in this way?
3. If you received a form completed in such a way as to suggest the patient had limited literacy skills, would you discuss it with the patient?
4. If so, how would you open the discussion with the patient?

Case 5: Mrs. Tilsley

Discussion of the brown-bag medication review

In a brown-bag medication review, the clinician asks the patient to take each pill bottle and explain the name of the pill, its purpose, and how it should be taken.

Issues for discussion:

1. What responses, besides those noted, would you expect when conducting a brown-bag medication review with a patient who has limited literacy or limited health literacy?
2. How can you and your staff help your patients keep track of their medications and use them correctly?
3. How much time do you think a brown-bag medication review might take? Do you think this is a feasible amount of time for you and your staff to spend? What benefits might accrue to you or the patient from spending this time?

Case 6: Dr. Alvarez and Mr. & Mrs. Grigar

Explanation of arthritis

Dr. Alvarez avoids medical terminology when he describes osteoarthritis to Mrs. Grigor and her husband. Instead, he uses the analogy of a creaky door hinge to illustrate the pathophysiology of arthritis.

Issues for discussion:

1. How might you explain to a patient, using no medical terms, the cause and treatment of the following medical conditions and their treatments?
   - Aortic stenosis
   - Pancreatitis
   - Duodenal ulcer caused by *Helicobacter pylori*
   - Epilepsy
2. How might you explain to a patient, using no medical terms, the following procedures?
   - First pelvic examination on a teenager
   - Coronary angioplasty and placement of an intracoronary stent
   - Placement of tympanostomy tubes
   - Lumbar puncture
   - Total knee replacement
3. What pictures or models might aid in the aforementioned explanations?

Useful resources

Guides to teaching and writing for patients who have limited literacy skills

- Doak CC, Doak LG, Root JH. *Teaching Patients with Low Literacy Skills.* 2nd ed. Philadelphia, Pa: JB Lippincott Company; 1996.
- National Literacy and Health Program. *Easy Does It: Plain Language and Clear Verbal Communication.* Ottawa: Canadian Public Health Association; 1998
- Osborne H. *Overcoming Communication Barriers in Patient Education.* New York, NY: Aspen Publishers; 2001.
- Centers for Medicare and Medicaid Services. *Writing and Designing Print Materials for Beneficiaries: A Guide for State Medicaid Agencies.* Available by fax at 410-786-1905.

Sources for easy-to-read patient education materials

- *Health and Literacy Compendium.* Boston, Mass: World Education; 1999. Available at http://www.worlded.org.

Educational programs, workshops, and institutes

- Cancer, Culture, and Literacy Institute
  H Lee Moffitt Cancer Center, Tampa, Florida
  http://www.moffitt.usf.edu/promotions/cclinstitute/index.htm
- Health Literacy Center, University of New England, Biddeford, Maine
  http://www.une.edu/hlit
- Clear Language Group
  http://www.clearlanguagegroup.com
- Health Literacy Consulting, Natick, Massachusetts
  http://www.healthliteracy.com

Organization Web sites

- American Medical Association Foundation Health Literacy Initiative
  http://www.amafoundation.org
- National Institute for Literacy
  http://www.nifl.gov
- Pfizer Health Literacy Initiative
  http://www.pfizerhealthliteracy.com/
- Reach Out and Read
  http://www.reachoutandread.org/
- Center for Health Care Strategies
  Fact sheets on health literacy
  http://www.chcs.org

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CME Questionnaire

Health Literacy: Help Your Patients Understand

A Continuing Medical Education Activity Sponsored by the American Medical Association.

Instructions:
The educational progam *Health Literacy: Help Your Patients Understand* (including the video, the manual, and the case studies at the end of the manual) contains the correct answers for the following 10 questions. Select your answer(s) to each question and write the corresponding letter in the answer space provided.

Please return the form to:

Division of Continuing Medical Education
American Medical Association
515 North State Street
Chicago, IL 60610
Fax: 312-464-4567

A certificate documenting your participation in the CME activity will be forwarded to you upon successful achievement of a score of 70%. The American Medical Association designates this educational activity for up to 2.5 hours in Category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

CME Questions

1. According to the 1992 National Adult Literacy Survey (NALS), what percentage of adult Americans are functionally illiterate?

a) 8% **b)** 15% **c)** 21% **d)** 37%

2. Literacy is a stronger correlate of self-reported health status than educational level and other sociodemographic variables.

a) True **b)** False

3. Patients who experience difficulty reading, understanding, and acting on healthcare information may cope in which of the following ways:

a) Bringing someone who can read with them to their physician appointment
b) Watching and copying others' actions
c) Asking help from the medical staff and/or other patients
d) b and c
e) a, b, and c

4. According to results of previous studies, how many patients did not understand directions to take medicine on an empty stomach?

a) 42% **b)** 35% **c)** 25% **d)** 10%

5. Low literacy is often associated with which of the following:

a) Higher healthcare costs
b) Poorer health status
c) Higher probabilities of hospitalization
d) a and c
e) a, b, and c

6. The average informed consent and living will forms are written at the _____ reading level.

a) 6th grade
b) 8th grade
c) 12th grade
d) postcollege

7. Which of the following strategies might be useful when communicating with a patient who has low health literacy skills?

a) Present 1 to 3 concepts at a time and check for understanding
b) Overuse technical jargon
c) Review written instructions and have patients repeat them in their own words
d) a and c
e) a, b, and c

8. Patients with low health literacy may have difficulty with which of the following:

a) Understanding medication directions
b) Completion of medical forms
c) Self-management of chronic conditions
d) a, b, and c

9. An individual who is able to read and understand materials with familiar content will be able to read and comprehend materials written at the same level of complexity even if the vocabulary and concepts are unfamiliar.

a) True **b)** False

10. Most of the people with health literacy are white native-born Americans.

a) True **b)** False

CME Answer Sheet

Please return the form to:

Division of Continuing Medical Education
American Medical Association
515 North State Street
Chicago, IL 60610
Fax: 312-464-4567

Exam Response

Circle your response, one response per question

Q 1.	**a**	**b**	**c**	**d**	
Q 2.	**a**	**b**			
Q 3.	**a**	**b**	**c**	**d**	**e**
Q 4.	**a**	**b**	**c**	**d**	
Q 5.	**a**	**b**	**c**	**d**	**e**
Q 6.	**a**	**b**	**c**	**d**	
Q 7.	**a**	**b**	**c**	**d**	**e**
Q 8.	**a**	**b**	**c**	**d**	
Q 9.	**a**	**b**			
Q 10.	**a**	**b**			

What change(s) do you plan to make in your practice as a result of studying the materials in the *Health Literacy* educational program?

Comments

Please print and include all information requested

Name

Address

City

State Zip

Phone

Fax

Medical School

Year of Graduation

ME#*

Signature

* The Medical Education Number (ME#) is an 11-digit number assigned to every physician in the US by the AMA. It is found on your AMA membership card, the mailing labels of your *JAMA*, *American Medical News*, or *Archives Specialty Journal*, or you can obtain your ME# by calling the AMA at 800-262-3211.

Program Evaluation

	Excellent	Above	Good	Below	Poor
Overall quality of the material	5	4	3	2	1
Content of the program	5	4	3	2	1
Usefulness in my practice	5	4	3	2	1
Would recommend it to my peers	5	4	3	2	1
Would recommend it to my office staff	5	4	3	2	1
Would recommend the CME program to my peers	5	4	3	2	1

An AMA Continuing Medical Education Program

The American Medical Association is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians. The American Medical Association designates this educational activity for up to 2.5 hours of Category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

The enclosed materials will enable physicians to:

- Understand the scope of the health literacy problem
- Recognize health system barriers faced by low literacy patients
- Improve methods of verbal and written communication
- Incorporate practical strategies to create a shame-free environment

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THE HEALTH LITERACY ENVIRONMENT OF HOSPITALS AND HEALTH CENTERS

Partners for Action:
Making Your Healthcare Facility Literacy-Friendly

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Health Literacy Studies (HLS) is located in the Department of Society, Human Development, and Health at the Harvard School of Public Health. HLS is a research program linked to the National Center for the Study of Adult Learning and Literacy (NCSALL). The members of the HLS team are engaged in a variety of research and implementation studies focused on communication and literacy skills to explore the pathways from education to health outcomes, to determine literacy-related barriers to a variety of health services and care, and to identify skills needed to access care, manage chronic diseases, and participate in disease prevention activities. HLS' work is based in community, public health, healthcare, and adult education settings. HLS' goal is to help reduce health disparities.

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Health and Adult Literacy and Learning Initiative, Harvard School of Public Health

Patients' ability to understand health and medical issues and directions is related to the clarity of the communication.

-Communicating Health: Priorities & Strategies for Progress
U.S. Department of Health and Human Services, 2003

Health literacy emerges when the expectations, preferences, and skills of individuals seeking health information and services meet the expectations, preferences, and skills of those providing information and services.

-Health Literacy: A Prescription to End Confusion
Institute of Medicine, 2004

Health literacy is the currency of success for improving emergency preparedness, eliminating health disparities, and preventing disease.

-U.S. Surgeon General Dr. Richard Carmona, 2004

Preface

Research indicates that increased awareness of and sensitivity to health literacy can enhance patients' learning, increase appointment keeping and compliance with regimens, improve patient safety, and remove barriers to accessing care. We ask you to consider the literacy demands of a hospital or health center.

The *health literacy environment* of a healthcare facility represents the expectations, preferences, and skills of those providing health information and services. Some of these demands are in the form of physical aspects of the hospital or health center, such as signs and postings. At the same time, access to and navigation of health services involves the use of a broader range of print materials such as applications, rights and responsibilities postings, payment calculations, medical history forms, directives, information booklets, and consent forms. In addition, the oral exchange in discussions with providers is of critical importance. Healthcare workers often use the language of their discipline, and words may get in the way of clear communication.

The Institute of Medicine (IOM) Committee on Health Literacy suggests that over 90 million U.S. adults do not have the literacy skills to access and use U.S. health systems. While the majority of U.S. adults can and do read, about half of U.S. adults have difficulty using commonly found print materials such as the dose charts on an over-the-counter medicine to accomplish everyday tasks such as determining how much medicine to give a child. Over 500 peer reviewed articles in public health and medical journals indicate a mismatch between the reading grade level of health materials and the average reading skills of U.S. adults. In addition, findings from the International Adult Literacy & Lifeskills Survey conducted in 2003 indicate that across industrialized nations, healthcare systems are becoming increasingly complex.

This guide and the review tools found within it offer an approach for analyzing literacy-related barriers to healthcare access and navigation. We designed this guide to assist chief executive officers, presidents, program directors, administrators, and healthcare workers at hospitals or health centers to consider the health literacy environment of their healthcare facilities and to analyze ways to reduce demands, to better serve their patients and staff and ultimately to increase revenue.

If you choose to undertake such a review, findings could spark discussions and help shape strategies to eliminate literacy barriers and enhance health literacy.

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We also thank Jon Crispin for his photographs, and Amy Lucid Inezian, Armand Inezian, and Marcus Dahmen for editorial assistance. We acknowledge the creativity and foundation work of TinVan Diep, Kelly Bruce, and Susan Koch-Weser.

[1] Literacy Alberta (formerly Alberta Association for Adult Literacy),"The Literacy Audit Kit". Developed by Susan Devins and Anne Scott in 1997. For more info on the complete kit please email office@literacyalberta.ca or visit www.literacyalberta.ca

Contents

I. INTRODUCTION……..……1

II. HEALTH LITERACY ENVIRONMENT REVIEW ……..…….……7

- **Navigation**
- **Print Communication**
- **Oral Exchange**
- **Technology**
- **Policies & Protocols**
- **Summary**

III. ACTION PLAN…….....27

- **Options for Reducing Literacy-Related Barriers**

IV. BACKGROUND & RESOURCES…….……...……63

- **Background Information on Health and Literacy**
- **Resources**

APPENDICES……..77

- **Appendix I: Partners for Action Examples**
- **Appendix II: Needs Assessment Tools**

I

Introduction

Reports from the U.S. Department of Health and Human Services (HHS) and the Institute of Medicine (IOM) use the following definition of health literacy:

> ***The degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.***

At the same time, however, both the HHS report *Communicating Health: Priorities and Strategies for Progress* and the IOM report *Health Literacy: A Prescription to End Confusion* propose an expanded understanding of the term so that both the skills of individuals and the demands of health systems are considered. The health literacy environment of a healthcare facility represents the demand side of the equation suggested by the IOM – the expectations, preferences, and skills of those providing health information and services. The purpose of this guide is to enhance communication and, at the same time, help reduce the literacy demands patients face in hospitals and health centers.

This guide focuses on key activities and tasks undertaken by both visitors and patients when they enter a healthcare facility. Patients and visitors will need to find their way to and around your facility, locate departments and offices, make use of materials given to them, fill out needed forms and questionnaires, as well as speak to staff. They will be expected to apply literacy skills to the tasks at hand.

Focus of this Guide

Section II contains the *Health Literacy Environment Review,* a tool designed to help you consider a broad range of issues and identify existing strengths and potential barriers. Findings will enable you and your team to discuss priorities and next steps for an institution-based health literacy initiative. Such initiatives are recommended by both the Institute of Medicine Committee on Health Literacy and by the Health Literacy and Patient Safety Working Group (2005-2006) of the Joint Commission on Accreditation of Healthcare Organizations.

Section III provides suggestions for interpretation of findings and for planning. This section contains recommendations drawn from the field of health literacy. Section IV contains additional background information on health literacy, as well as resources that you may find helpful as you move forward with your health literacy initiatives.

The guide concludes with two appendices. Appendix I, *Partners for Action Examples*, includes examples of partnerships formed between healthcare facilities and other community based organizations and agencies to improve health literacy. Appendix II, *Needs Assessment Tools,* contains a number of activities that can help prepare you for the *Health Literacy Environment Review.* You may choose to do all activities, or several of them, depending on your priorities, needs, and time. Activities in this section will enable members of your team to identify existing literacy-related strengths and limitations, and set the foundation for further analyses.

For example, the **telephone assessment** will provide you with a sense of the first impression people might have of your healthcare facility. The **walking interview** will help you gain insight into physical characteristics of your healthcare facility that enhance or diminish one's ability to find one's way. The **materials assessment tools** will help you understand components of print materials that can make reading easy or challenging. The suggested workshop will be valuable to any staff members who wish to learn how to assess materials. This may also be of particular interest for human subjects training.

The **oral exchange assessment** draws on patients' experiences and impressions of communication issues. The **current technology assessment** will provide you with a mechanism to assess where and how existing technology (televisions, telephones, computers, and kiosks) are currently being used within your healthcare facility. The findings for each of these activities could be used to complete the review ratings found in the *Health Literacy Environment Review.*

Potential Users of this Guide

Ideally, the CEO or president of a hospital or health center is the best person to take the lead on heading up the activities provided in this guide and to charge committees and/or individuals with the authority to carry out these activities.

The reviewers suggest people (by role) who could complete the ***Health Literacy Environment Review*** and the needs assessment activities (located in Appendix II)**. These include**: Community Vice President, Director of Community Affairs, Community Resource Director, Clinic Administrator, General Medicine Clinic Medical Director, Program Director, Program Manager, Education Director, Quality Improvement Director, faculty physicians or other faculty members (with interest), Business Manager, Director of Nursing, Nurse Manager, residents (with interest), Patient Safety Committee members, and some medical assistants.

The reviewers recommend key decision makers (by role) who could carry out a **post-review analysis. These include:** Executive or Senior Vice President, Associate Dean for Clinical Affairs, Chairs of Department, Practice Manager, General Medicine Clinic Medical Director, Clinic Director, Clinical Leadership Teams, Patient Safety Director, Business Administrator, Residency Director, select faculty members with expertise, Director of Nursing, Nurse Manager, and Administrative/ Clinical Staff.

Various healthcare facilities have approached health literacy activities differently—some have formed teams within their healthcare facility and others have formed partnerships with outside organizations such as adult education centers, libraries, and academic institutions. Whether your facility works independently or with an outside agency, we hope this guide enables you to identify and to begin eliminating literacy barriers within your healthcare facility.

We recommend that you begin the review process described in this guide by identifying key decision makers within your healthcare facility. Documented and articulated institutional policies covering print and oral exchange are critical in light of what we know about adult literacy in the U.S. Research indicates that increased awareness of and sensitivity to health literacy can enhance learning, increase appointment keeping and compliance with regimens, improve patient safety, remove access barriers, and reduce costs. Policies, protocols, and procedures are the cornerstones of efficient and consistent operation of any facility.

You will want to identify individuals who are best able to complete the review, those who are best able to consider the findings, and those who are best able to set and implement new policies, protocols, and procedures. They may not be all the same people. We provide you with a form on the following pages to help you identify key decision makers within your healthcare facility.

Key Personnel for Review & Planning Form

Please identify the people whose responsibility it is to…

1. Conduct new staff and volunteer orientation

_____ _____

_____ _____

2. Train staff and volunteers how to answer the telephone

_____ _____

_____ _____

3. Train staff and volunteers at the welcome or help desk

_____ _____

_____ _____

4. Offer professional development seminars

_____ _____

_____ _____

5. Develop patient orientation materials unique to your facility
   (such as welcome brochures, information booklets, and patients' rights & responsibilities postings)

_____ _____

_____ _____

6. Develop forms that patients fill out that are unique to your facility
   (such as intake forms, health insurance forms, and medical history forms)

_____ _____

_____ _____

Please continue onto next page→

7. Develop patient education materials unique to your facility
   (such as disease and medicine descriptions)

_____ _____

_____ _____

8. Develop community relations materials unique to your facility
   (such as mailings and promotional materials)

_____ _____

_____ _____

9. Develop maps and signs

_____ _____

_____ _____

10. Oversee Institutional Review Board (IRB) reviews

_____ _____

_____ _____

11. Develop and review informed consent materials

_____ _____

_____ _____

12. Set policies and protocols within departments/divisions

_____ _____

_____ _____

13. Oversee institutional policies and protocols

_____ _____

_____ _____

II
Health Literacy Environment Review

The *Health Literacy Environment Review* includes ratings for the following components:

1. Navigation
2. Print Communication
3. Oral Exchange
4. Technology
5. Policies & Protocols
6. Summary

Note: Many of the questions in this review tool are subjective; however, we have included them in an effort to raise awareness about these environmental components.

We acknowledge the fine work of Literacy Alberta (formerly Alberta Association for Adult Literacy) and note that, with their permission, we have incorporated the structure and some content from "The Literacy Audit Kit"[2]. Additionally, we thank and acknowledge the foundation work of Len and Ceci Doak[3] and the work of Jeanne McGee[4].

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[2] Literacy Alberta (formerly Alberta Association for Adult Literacy),"The Literacy Audit Kit". Developed by Susan Devins and Anne Scott in 1997. For more info on the complete kit please e-mail office@literacyalberta.ca or visit www.literacyalberta.ca.

[3] Doak, L., Doak, C., & Root, J. (1996) *Teaching patients with low literacy skills* (2nd ed). Philadelphia, PA: J.B. Lippincott Company. This is no longer in print but it is available on our Web site free of charge at www.hsph.harvard.edu/healthliteracy.

[4] U.S. Department of Health and Human Services. (1999) *Writing and designing print materials for beneficiaries: A guide for state Medicaid agencies* (HCFA Publication No. 10145). Baltimore, MD: Author: Jeanne McGee.

Part 1: Navigation Rating

Please check the ONE response that most accurately describes your hospital or health center today using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

A. Telephone System

	1	2	3
1. When a phone call is answered (either by person or an automated phone system), there is an option to hear information in a language other than English.	☐	☐	☐
2. If there is an automated phone system, there is an option to speak with an operator or help desk.	☐	☐	☐
3. If there is an automated phone system, there is an option to repeat menu items.	☐	☐	☐
4. Information is offered (either by person or an automated phone system) with plain, everyday words.	☐	☐	☐

B. Entrance

	1	2	3
5. The healthcare facility's name is clearly displayed on the outside of the building.	☐	☐	☐
6. All entry signs are visible from the street.	☐	☐	☐
7. The signs use plain, everyday words such as "Walk-In" rather than formal words such as "Ambulatory Care".	☐	☐	☐

C. Lobby

	1	2	3
8. There is a map in the lobby.	☐	☐	☐
9. The map includes a key.	☐	☐	☐
10. The map shows the present location with a "you are here" and/or a star or symbol.	☐	☐	☐
11. Handheld maps are available for people to take with them.	☐	☐	☐
12. There is a welcome or information desk.	☐	☐	☐
13. A sign indicates the welcome or information desk.	☐	☐	☐

Part 1: Navigation Rating *(continued)*

Please check the ONE response that most accurately describes your hospital or health center today using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

D. Staff Assistance

	1	2	3
14. Staff or volunteers are available at or near the main entrance to help visitors.	☐	☐	☐
15. Multilingual staff or volunteers are available at or near the main entrance to help visitors.	☐	☐	☐
16. Staff or volunteers are present at the welcome or information desk.	☐	☐	☐
17. Multilingual staff or volunteers are available at the welcome or information desk.	☐	☐	☐
18. Staff or volunteers wear identification such as a button, uniform, or nametag.	☐	☐	☐

E. Hallways: Navigation Ease

	1	2	3
19. Maps are posted at various locations around the facility.	☐	☐	☐
20. Words used for locations on signs throughout the facility remain consistent (i.e. the "Cafeteria" is always referred to as "Cafeteria", not as "Café" or "Restaurant").	☐	☐	☐
21. Consistent symbols/graphics are used on signs throughout the facility.	☐	☐	☐
22. Overhead signs use large, clearly visible lettering.	☐	☐	☐
23. Wall (eye level) signs use large, clearly visible lettering.	☐	☐	☐
24. Signs are written in English and in the primary languages of the populations being served (i.e., if most of the patients speak English and Spanish, signs are written in English and Spanish).	☐	☐	☐
25. Color codes are used consistently on the walls or floors throughout the facility to mark paths to and from various sections of the facility.	☐	☐	☐

Part 1: Navigation Rating *(continued)*

Please check the ONE response that most accurately describes your hospital or health center today using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

F. Service and Specialty Areas (Medical Records, Pharmacy, MRI, etc.)

	1	2	3
26. The name of the clinic/service area is clearly posted.	☐	☐	☐
27. Sign-in procedures are clearly indicated.	☐	☐	☐
28. Staff offer help for completing any needed paperwork.	☐	☐	☐
29. Materials provided to patients have been assessed for their reading grade level (8th grade or below).	☐	☐	☐
30. Materials provided to patients have been assessed for their cultural appropriateness.	☐	☐	☐
31. Materials provided to patients are written in the primary languages of the populations being served.	☐	☐	☐

Part 1: Navigation Rating Summary

Calculating Your Navigation Score			
Response	**Tally**	**Multiply**	**Score**
1. **This is something that is not done.**		**x 1 =**	
2. **This is done, but needs some improvements.**		**x 2 =**	
3. **This is done well.**		**x 3 =**	
		TOTAL SCORE =	

Interpreting Your Navigation Score	
Score Range	**Next Steps**
0-30	**Begin a focused initiative to eliminate literacy-related barriers.**
31-61	**Augment efforts to eliminate literacy-related barriers.**
62-93	**Continue to monitor and eliminate literacy-related barriers.**

Part 2: Print Communication Rating

Type of material being assessed (please check one):

- ☐ Community relations
- ☐ Patient/client orientation
- ☐ Forms patients fill out
- ☐ Follow up notifications
- ☐ Patient education materials
- ☐ Legal materials
- ☐ Discharge preparation

Purpose of the material being assessed (please check one):

- ☐ Deliver information (e.g., patient education about asthma)
- ☐ Provide directions (e.g., directions for using a peak flow meter)
- ☐ Collect information (e.g., a health history form)

Please check the ONE response that most accurately describes the print material using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

A. Writing Style

	1	2	3
1. The material emphasizes and summarizes the main points.	☐	☐	☐
2. The information is grouped into meaningful sections.	☐	☐	☐
3. The material is written in the active voice and in a conversational style.	☐	☐	☐
4. The material uses devices to engage and involve the reader, such as question and answer format, true-or-false, stories, or dialogues.	☐	☐	☐
5. The words and sentences are generally short, simple, and direct.	☐	☐	☐
6. If medical terms (such as "dosage" or "monitoring") are used, they are clearly explained with helpful examples.	☐	☐	☐
7. The reading grade level is that of the average U.S. adult (8th grade or below).	☐	☐	☐
8. Translations use plain, everyday words, and short sentences.	☐	☐	☐

Part 2: Print Communication Rating *(continued)*

Please check the ONE response that most accurately describes the print material your hospital or health center uses, using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

B. Organization and Design

	1	2	3
9. The material uses headings, subheadings, or other devices to signal what is coming next.	☐	☐	☐
10. The labels for sections, headings, and subheadings are clear.	☐	☐	☐
11. The material looks uncluttered, with generous margins and plenty of white space.	☐	☐	☐
12. The graphic design uses devices such as contrast, bullets, and indentation to signal the main points and make the text easy to skim.	☐	☐	☐
13. The material uses bullets effectively (size, shape, spacing, and color.)	☐	☐	☐
14. Explanatory illustrations, diagrams, tables, charts, and graphs are clearly labeled and placed near the text that introduces them.	☐	☐	☐

C. Type Style, Size of Print, and Contrast with Paper

	1	2	3
15. The font size is 12-point or greater.	☐	☐	☐
16. The text uses CAPITAL letters only when needed grammatically.	☐	☐	☐
17. The text avoids splitting words across two lines.	☐	☐	☐
18. There is contrast between the printed text and the paper.	☐	☐	☐
19. The print does not overlay pictures or designs.	☐	☐	☐

Part 2: Print Communication Rating *(continued)*

Please check the ONE response that most accurately describes the print material your hospital or health center uses, using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

D. Photographs, Illustrations, Symbols, and Diversity

	1	2	3
20. The material uses photos, illustrations, symbols, patterns, and other visuals to reinforce key messages.	☐	☐	☐
21. The material avoids using cartoons, humor, and caricature, which may be understood as offensive.	☐	☐	☐
22. The people and activities shown in photos or illustrations are contemporary.	☐	☐	☐
23. The people and activities shown in photos or illustrations are representative (in their demographics, physical appearance, behavior, and cultural elements) of the intended audience of the materials.	☐	☐	☐
24. The material shows awareness of and respect for diversity, and uses culturally appropriate words and examples.	☐	☐	☐

Part 2: Print Communication Rating Summary

Calculating Your Print Communication Score			
Response	**Tally**	**Multiply**	**Score**
1. **This is something that is not done.**		**x 1 =**	
2. **This is done, but needs some improvements.**		**x 2 =**	
3. **This is done well.**		**x 3 =**	
		TOTAL SCORE =	

Interpreting Your Print Communication Score	
Score Range	**Next Steps**
0-23	**Begin a focused initiative to eliminate literacy-related barriers.**
24-47	**Augment efforts to eliminate literacy-related barriers.**
48-72	**Continue to monitor and eliminate literacy-related barriers.**

Part 3: Oral Exchange Rating

Please check the ONE response that most accurately describes staff oral communication skills at your hospital or health center today using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

Oral Exchange

	1	2	3
1. Staff offers everyone help (i.e., filling out forms, getting directions) regardless of appearance.	☐	☐	☐
2. Multilingual staff are available to help people.	☐	☐	☐
3. Staff uses sentences that are short, direct, and use plain, everyday words.	☐	☐	☐
4. Staff adjusts the pace of their speech when they work with people for whom English is a second language.	☐	☐	☐
5. Staff checks in with patients by asking "Am I being clear?" rather than "Do you understand?"	☐	☐	☐
6. Staff asks patients if they have any questions.	☐	☐	☐
7. Staff uses audio and/or videotapes when such materials are available.	☐	☐	☐
8. Translation services are available or can be called in with short notice.	☐	☐	☐

Part 3: Oral Exchange Rating Summary

Calculating Your Oral Exchange Score			
Response	**Tally**	**Multiply**	**Score**
1. **This is something that is not done.**		**x 1 =**	
2. **This is done, but needs some improvements.**		**x 2 =**	
3. **This is done well.**		**x 3 =**	
		TOTAL SCORE =	

Interpreting Your Oral Exchange Score	
Score Range	**Next Steps**
0-8	**Begin a focused initiative to eliminate literacy-related barriers.**
9-16	**Augment efforts to eliminate literacy-related barriers.**
17-24	**Continue to monitor and eliminate literacy-related barriers.**

Part 4: Technology Rating

Please check the ONE response that most accurately describes the current technology your hospital or health center uses, using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

Technology	1	2	3
Televisions			
1. Televisions are available to patients in one or more locations (i.e., waiting areas, testing sites, pharmacy).	☐	☐	☐
2. Televisions are equipped for DVD or VCR use.	☐	☐	☐
3. Televisions are used for orientation purposes.	☐	☐	☐
4. Televisions are used for educational purposes.	☐	☐	☐
Telephones			
5. House telephones are available to patients in one or more locations (i.e., hallways, waiting areas, testing sites, pharmacy).	☐	☐	☐
6. House telephones offer directions to people throughout the facility.	☐	☐	☐
7. House telephones offer links to translation services.	☐	☐	☐
Computers			
8. Computers are available to patients in one or more locations (i.e., waiting areas, testing sites, pharmacy, resource rooms).	☐	☐	☐
9. Computers are programmed for orientation purposes.	☐	☐	☐
10. Computers are programmed for educational purposes.	☐	☐	☐
11. Computers have Internet connections.	☐	☐	☐
12. Computers have headsets connected to them.	☐	☐	☐
13. Exam rooms have computers where providers can show patients parts of their electronic medical records.	☐	☐	☐
14. Providers can print out specific patient education materials.	☐	☐	☐
Kiosks			
15. Kiosks are available to patients in one or more locations (i.e., waiting areas, testing sites, pharmacy, resource rooms).	☐	☐	☐
16. Kiosks are programmed for orientation purposes.	☐	☐	☐
17. Kiosks are programmed for educational purposes.	☐	☐	☐
18. Kiosks have headsets connected to them.	☐	☐	☐

Part 4: Technology Rating Summary

Calculating Your Technology Score			
Response	**Tally**	**Multiply**	**Score**
1. **This is something that is not done.**		**x 1 =**	
2. **This is done, but needs some improvements.**		**x 2 =**	
3. **This is done well.**		**x 3 =**	
		TOTAL SCORE =	

Interpreting Your Technology Score	
Score Range	**Next Steps**
0-17	**Begin a focused initiative to eliminate literacy-related barriers.**
18-35	**Augment efforts to eliminate literacy-related barriers.**
36-54	**Continue to monitor and eliminate literacy-related barriers.**

Part 5: Policies & Protocols Rating

Please check the ONE response that most accurately describes the policies and protocols at your hospital or health center today, using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

A. Use of Print

	1	2	3
1. All print materials for public display use plain, everyday words and phrases.	☐	☐	☐
2. All print materials for patients are written at a reading grade level of 8 or below.	☐	☐	☐
3. All new print materials are piloted with members of the intended audience.	☐	☐	☐
4. All patients have an opportunity to ask questions about policies and protocols.	☐	☐	☐

B. Oral Exchange

	1	2	3
5. All staff and volunteers use plain, everyday words and phrases in all discussions with patients.	☐	☐	☐
6. Staff trained in translations services are available.	☐	☐	☐
7. Protocols prohibit the use of children or untrained staff or volunteers as medical translators.	☐	☐	☐
8. All translators use plain, everyday words and phrases.	☐	☐	☐

Part 5: Policies & Protocols Rating *(continued)*

Please check the ONE response that most accurately describes the policies and protocols at your hospital or health center today, using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

C. Staff Orientation

	1	2	3
9. The facility holds an orientation program for all staff and volunteers who may interact with patients. All staff and volunteers include:			
a. Administrative staff (support staff, coordinator)	☐	☐	☐
b. Intake staff	☐	☐	☐
c. Discharge coordinator	☐	☐	☐
d. Nursing (RNs, LPNs)	☐	☐	☐
e. Medical (MDs, NPs, PAs, DOs, DMD)	☐	☐	☐
f. Pharmacy (pharmacists, educators, technicians)	☐	☐	☐
g. Allied health professionals (social workers , physical therapists, occupational therapists, educators, medical assistants, x-ray technicians)	☐	☐	☐
h. Translation service staff	☐	☐	☐
i. Telephone and help desk staff	☐	☐	☐
j. Custodial staff	☐	☐	☐
k. Volunteers	☐	☐	☐
10. Orientation for all staff and volunteers includes a description of the physical layout and design of the facility.	☐	☐	☐
11. Orientation for all staff and volunteers includes a discussion about literacy issues.	☐	☐	☐
12. Orientation for all staff and volunteers includes information about the patient population (cultures, languages and other demographics).	☐	☐	☐

Part 5: Policies & Protocols Rating (*continued*)

Please check the ONE response that most accurately describes the policies and protocols at your hospital or health center today, using the following rating scale:

1. **This is something that is not done.**
2. **This is done, but needs some improvements.**
3. **This is done well.**

D. Staff Skills Building (print communication and oral exchange)

	1	2	3
13. The facility offers on-site training or workshops about health literacy issues related to print communication for all relevant staff and volunteers.	☐	☐	☐
14. The facility offers on-site training or workshops about health literacy issues related to oral exchange for all relevant staff and volunteers.	☐	☐	☐
15. The facility offers on-site training or workshops about how to use existing and new technologies (i.e., exam room computers, use of electronic medical records) for all relevant staff and volunteers.	☐	☐	☐
16. The facility offers CME credit courses related to health literacy and communication for all professional staff.	☐	☐	☐
17. The facility offers employees adult education and English for Speakers of Other Languages (ESOL) courses to build literacy skills.	☐	☐	☐
18. All staff know about adult literacy resources in the community. If asked, they could tell a patient or fellow employee where to get help to improve literacy skills.	☐	☐	☐
19. The facility has a resource room available to all staff and volunteers with DVDs, booklets, Web sites, etc. about health literacy issues.	☐	☐	☐

Part 5: Policies & Protocols Rating Summary

Calculating Your Policies & Protocols Score			
Response	**Tally**	**Multiply**	**Score**
1. **This is something that is not done.**		**x 1 =**	
2. **This is done, but needs some improvements.**		**x 2 =**	
3. **This is done well.**		**x 3 =**	
		TOTAL SCORE =	

Interpreting Your Policies & Protocols Score	
Score Range	**Next Steps**
0-18	**Begin a focused initiative to eliminate literacy-related barriers.**
19-37	**Augment efforts to eliminate literacy-related barriers.**
38-57	**Continue to monitor and eliminate literacy-related barriers.**

Part 6: Summary Sheet for Review & Analysis

Calculating Your Overall Score for the Health Literacy Environment Review	
Section of Review	**Score for Section**
1. Navigation	
2. Print Communication	
3. Oral Exchange	
4. Technology	
5. Policies & Protocols	
TOTAL =	

Interpreting Your Overall Score for the Health Literacy Environment Review	
Score Range	**Next Steps**
0-100	**Begin a focused initiative to eliminate literacy-related barriers.**
101-200	**Augment efforts to eliminate literacy-related barriers.**
201-300	**Continue to monitor and eliminate literacy-related barriers.**

Part 6: Summary Sheet for Review & Analysis *(continued)*

Institution-Based Health Literacy Initiative

Strengths

_____

_____

_____

Weaknesses

_____

_____

_____

Priority/Start Point

_____

_____

_____

Key Staff Involved in Institution-Based Health Literacy Initiative

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

III

Action Plan

This section of the guide focuses on the findings from the *Health Literacy Environment Review* and provides recommendations for improving the literacy environment of a facility. First, however, it is important to note that it is unlikely that any institution can eliminate all literacy barriers. Some, such as signage, may be too costly to change. Some, such as the use of professional jargon, represent a cultural change that may only happen over time. Others, such as patient education materials, may only change if and when better materials become available. Some, such as discharge preparation information, can be modified immediately.

An action plan for a health literacy initiative must be specific to a healthcare facility, and reflect priorities as well as cost considerations. Small improvements can make a difference. The following is the section outline:

Options for Reducing Literacy-Related Barriers

- Navigation
- Print Communication
- Oral Exchange
- Technology
- Policies & Protocols

Navigation

Navigation tools such as maps, signs, and staff are often available in healthcare facilities to help people find their way to and around the facility. However, these tools are only useful for patients when they are easily accessible and understandable. In the following pages, we provide you with recommendations for increasing the visibility and readability of navigation tools in your healthcare facility based on the following key areas:

- Telephone
- Entrance
- Lobby
- Guidance
- Maps and Signs

Recommendations for Telephone Improvement

The telephone is often the first contact a person has with a healthcare facility. This initial interaction can shape a person's impressions of that healthcare facility.

An *automated telephone system* can be improved with the following adjustments:

- Provide patients with the option to speak with a person.
- Provide patients with the option to repeat menu items.
- Use clear and simple language.
- Use a conversational tone.
- Use a slow pace.
- Provide patients with directions to the healthcare facility using multiple forms of transportation, including public transportation.

A *person* who answers the telephone can be offered a training program that provides protocols and opportunities for practicing to:

- Speak at a slow and relaxed pace.
- Maintain a friendly conversational tone.
- Use plain, everyday words and phrases.
- Answer common questions, such as directions to the healthcare facility using multiple forms of transportation including public transportation.

Recommendations for Entrance Improvement

People may encounter problems locating a healthcare facility for the first time when the facility does not have visible signs on the outside of the buildings. This can be particularly challenging when a healthcare facility has multiple entrances that are not all clearly labeled with signs.

The entrance to the healthcare facility can…

- Display the facility's name clearly on the outside of the building, so patients can recognize they are in the right place.
- Provide entry signs that are visible from the street.
- Use signs with plain, everyday words such as "Walk-In" rather than medical words such as "Ambulatory Care" or "Outpatient Services".

Recommendations for Lobby Improvement

People can often feel intimidated in facilities such as hospitals and health centers. A welcome sign and information desk can help patients feel a sense of welcome.

The lobby of a healthcare facility can…

- Provide a sign with words of welcome.
- Provide a large wall map with a key and an indication of present location, such as a statement of 'you are here' or a star.
- Provide patients with a welcome or information desk, with a sign indicating its purpose.
- Provide artwork that reflects various cultural groups, or photographs of the local area or people.

Recommendations for Guidance Improvement

People often respond warmly when assistance, such as help with directions, is available to them.

A healthcare facility can have staff members and volunteers who …

- Are available at or near the main entrance to help visitors.
- Wear identification such as a button, uniform, or tag.
- Provide patients with customized handheld maps (with a highlighted pathway or destination point).

Recommendations for Map and Sign Improvement

National surveys of adult literacy skills indicate that many people have difficulty using maps and signs. Therefore, it is important for healthcare facilities to use simple and clear maps and signs so that their patients can more readily use them. The placement of signs is also important. For example, it is easy for people to walk past flat signs, such as wall signs. When wall signs are combined with other signs, such as overhead signs or signs jutting from the wall, it is often easier for people to notice them.

The maps in the facility center can…

- Be posted at various locations around the facility.
- Include a key.
- Indicate present location with a "you are here" and/or a star.
- Use colors when the color codes on the maps reflect colors on the walls or floors of the healthcare facility.

The signs in the facility can…

- Use consistent symbols/graphics.
- Use consistent words (i.e., "Cafeteria" is always referred to as "Cafeteria", not "Café" or "Restaurant").
- Use large, clearly visible lettering on overhead signs.
- Use large, clearly visible lettering on wall signs (eye level signs).
- Use common words and graphics.
- Indicate each service or clinic site with a sign (i.e., "Medical Records").

Resources on Navigating Healthcare Facilities

Rudd, R.E. (2004). Navigating hospitals: Literacy barriers. *Literacy Harvest, 11*(1), 19 24.

Rudd, R.E., Renzulli, D., Pereira, A., & Daltroy, L. (2005). Literacy demands in healthcare settings: The patient perspective. In J.E. Schwartzberg, J.B. VanGeest, & C.C. Wang (Eds.), *Understanding health literacy: Implications for medicine and public health* (pp. 69-84). Chicago, IL: American Medical Association.

Print Communication

Patients are often inundated with materials (that focus on community relations, patient orientation, follow-up, patient education, legal materials, forms patients fill out, and discharge preparation information) when they go to a healthcare facility. These materials are only helpful for patients when they are written at the appropriate average reading grade level (~grade 8 or below) and have a simple layout and design. The following pages include recommendations for:

- Creating Materials
- Assessing Materials

Recommendations for Creating Materials

When staff members develop new materials, they should consider the following:

1. Use plain language

Plain language is defined as a clear, simple, and conversational words and style. Plain language materials present information in a format that considers reading ease based on the organization and style of the text. Recommendations include:

Organization

- Open by addressing issues that are of greatest interest to the reader (this requires pilot testing).
- Group information into meaningful sections with clear headings.
- Emphasize and summarize main points.

Style

- Use everyday words (e.g., use instead of utilize).
- Explain terms and offer examples.
- Avoid long and complex sentences.
- Write in the active voice.
- Engage the reader by referencing a shared context, or by using a question and answer format, true or false, stories, or dialogues.
- Link information to trusted sources.
- Limit text to most important concepts, and avoid extra information.

2. Apply layout and design elements that make reading easy

The design of a material can make reading easier or more difficult. Recommendations include the following:

Type and Spacing

- Use a readable type style—a footed font (serif) in 12-point size.
- Use appropriate spaces between lines—generally 1.2 to 1.5 spacing.
- Provide good contrast between the paper and the text.
- Do not print words on shaded or patterned background.
- Use upper and lower case and avoid all CAPITAL LETTERS.
- Include ample white space on the page.

Margins and Lines

- Use large margins (at least 1 inch on each side).
- Leave the right margin jagged (do not fully justify text).
- Do not split words across two lines.

Overall Design

- Be consistent.
- Avoid clutter.
- Provide a guide for finding key information.
- Clearly label all illustrations and charts:
  - → Offer explanations.
  - → Make legends clear.
  - → Place charts as close as possible to explanatory text.
  - → Avoid wrapping text around illustrations.
- Use consistent and easily recognized headings.
- Signal main points with bold font or highlights.

3. Use rigorous methods to develop materials

Avoid developing materials casually or informally. Be sure the purpose and proposed use of the materials is identified. All materials should be tested with members of the intended audience to 1) check for proposed use, value, and shared meaning, and to 2) test the organization, layout, and design. Recommendations include:

- Review all materials, and use a consistent checklist. We provide you with a few sample checklists on **pages 41-43.**
- Engage members of the intended audience in the development and review process.
- Re-work the materials based on reviews.
- Pilot materials with members of the intended audience.
- Re-work materials based on pilot test findings and suggestions.

Recommendations for Assessing Materials

Many tools (such as the SMOG, FRY, and the Flesch-Kincaid) are available to help assess the reading grade level of print materials. Most of these tools have been used extensively in the education field and have been well-tested. In addition, there are several tools available to help us conduct broader assessments of written health materials. We provide several of these tools on **pages 129-142** of this guide.

Conduct reading grade level assessments

Assessments of the reading grade level of text offer some insight into the level of difficulty of print materials. Most reading grade level scores focus on the length of sentences and the vocabulary (generally assessed by number of syllables in words) in a text. Recommendations for improving reading grade levels include:

- **Avoid using long sentences**
  Long sentences often contain phrases set aside by commas, multiple ideas, and/or lists. Poor readers often read slowly. They have problems with long sentences because they can lose the main idea partway through the sentence.

- **Avoid using long multi-syllabic words**
  Multi-syllabic words are considered an indicator of vocabulary difficulty (e.g., *medication* for *medicine*). Poor readers often need to sound out words, and longer words present a bigger challenge. Vocabulary development requires background knowledge and exposure.

Resources for Creating and Assessing Print Materials

A 15 Step Process for Creating Materials

(from Health Literacy Studies)

1. Determine the intended audience for the materials.

2. Determine the need for the materials under consideration.

3. Determine the potential use of the materials. Ask:
   - *How will the potential audience use the materials?*
   - *What will the readers do after reading the materials?*
   - *Do the materials prepare the readers to take recommended action?*

   NOTE: Be prepared to stop the project if this material is available elsewhere in adequate form, or if the material is of no perceived use to the intended audience.

4. Develop a distribution and evaluation plan.
   - Consider who will distribute the materials. Studies indicate that when a doctor gives materials to a patient, the patient is more likely to use them than when materials are simply made available.
   - Develop a small evaluation study to determine actual use and outcomes. Questions of interest might include: *Did you read this material? Was it helpful for activity X? Did you share this material with others?*

5. Divide the information into logical 'chunks' or sections, and provide a heading for each section.

6. Check all medical and scientific information with experts.

7. Determine the order of information. Have the writer (or writing team) work closely with members of the intended audience. Ask the writing partners the following questions:
   a. *What topic is most important to you?*
   b. *What information is missing?*

Instructions continue onto next page→

8. Prepare a 1st draft of the text in the order of interest to readers.

9. Check the words in the text.
   - Be sure the materials use everyday words
   - Avoid jargon
   - Provide a glossary of medical or scientific words, if needed.

10. Check the sentences in the text to be sure that each sentence conveys one idea.
    - If a sentence is too long, break it up into two or three sentences.
    - Avoid clauses that add information to a sentence. If the information is important, it deserves its own sentence.
    - Avoid sentences that include lists. Instead, use bulleted lists when needed.

11. Conduct a SMOG assessment. Re-examine words and long sentences for needed re-writing.

12. Review the 2nd draft with members of the intended audience and an adult educator. Ask the reviewers to think of a neighbor, friend, relative, or student, as appropriate. Ask: *Where would this person face some problems? What should be changed to make the information clearer to this person? How would this person use this material?*

NOTE: Be prepared to stop the production process if this material is of no perceived use to the intended audience.

13. Re-write the text and prepare the 3rd draft with layout, design and visuals, as needed.
    - Use a 12 point clear font.
    - Include plenty of white space.
    - Highlight headings.
    - Use graphics that highlight a theme and/or provide a needed illustration.
    - Provide a glossary of terms, if needed.

14. Pilot test with members of the intended audience. Ask: *Would you pick this up? Do you think that this material was developed for people like you? What would make this more appealing?* Make necessary changes.

15. Print materials; distribute as planned; evaluate use and outcome

CDC's Checklist for Easy-to-Read Print Materials

(from CDC's *Simply Put, 2nd ed., 1999)*

- ☐ Have you limited your messages to 3-4 per document (or section)? Have you left out information that is "nice to know" but not necessary?
- ☐ Is the most important information at the beginning of the document, and repeated at the end?
- ☐ Have you identified action steps or desired behaviors for your audience?
- ☐ Is information presented in an order that is logical to your audience?
- ☐ Is information chunked, using headings and subheadings? Do lists include bullets?
- ☐ Is the language culturally appropriate? And the visuals?
- ☐ Have you eliminated as much jargon and technical language as possible? Is technical or scientific language explained?
- ☐ Have you used concrete nouns, active voice, and short words and sentences? Is the style conversational?
- ☐ Is the cover attractive to your target audience? Does it include your main message?
- ☐ Are your visuals simple and instructive rather than decorative? Do they help explain the messages found in the text?
- ☐ Are your visuals placed near related text? Do they include captions?
- ☐ Does your document have lots of white space? Are margins at least ½ inch?
- ☐ Is the print large enough (at least 12 point) and does it have serifs?
- ☐ Have you used bold, underlining, and text boxes to highlight information? And avoided using all capital letters?
- ☐ Is text justified on the left only? Did you use columns?

Resources for Creating and Assessing Print Materials *(continued)*

Simply Put. **Centers for Disease Control and Prevention (CDC).**
This guide helps you translate technical and scientific language into information that captures and holds the interest of your intended audience. It provides tips for writing simply, using visuals, and organizing information for easy recall and understanding. *Simply Put* is available at http://www.cdc.gov/od/oc/simpput.pdf.

Teaching Patients with Low Literacy Skills, Second Edition. **(1996). Authors: Doak, Doak and Root. Philadelphia, PA: J.B. Lippincott Company.**
This 'classic' is for health educators and healthcare providers who wish to improve communication with adults who have limited literacy skills. The book covers a wide range of topics, including educational theories, how to test for literacy skills, how to assess the suitability of materials, and how to create easily understood visuals. The authors discuss how to test and revise health education materials. The book includes directions for using the Fry formula, a copy of the REALM, and a copy of the Suitability Assessment of Materials (SAM). The SAM, an assessment tool, was created by Doak and Doak. This is no longer in print but it is available on our Web site free of charge at www.hsph.harvard.edu/healthliteracy.

Making Health Communication Programs Work: A Planner's Guide. **(1989). U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health and Office of Cancer Communications, National Cancer Institute.**
This guide has become a standard reference and is often referred to as the 'pink book'. In it, the Office of Cancer Communications sets out key principles for each stage of communication program development. The section on developing and pretesting materials includes considerations for message construction, tips for developing public service announcements (PSAs), and methods for pretesting. It offers practical steps for evaluating communication programs. Appendices include the SMOG formula, a focus group moderator's guide, and helpful resources on designing a public service announcement. The guide is available at http://www.cancer.gov/pinkbook.

Clear and to the Point: Guidelines for Using Plain Language at NIH. **National Institutes for Health.**

This summary provides guidelines and useful examples of how to write in plain language, engage readers, display information, and evaluate materials. *Clear and to the Point* is available at http://execsec.od.nih.gov/plainlang/guidelines/index.html

Clear & Simple: Developing Effective Print Materials for Low Literate Readers. **(1994). National Institutes of Health, National Cancer Institute.**

This guide outlines a process for developing materials with and for people with limited literacy skills. The guide contains five sections. Each section highlights specific considerations for materials development: defining the target audience, conducting audience research, developing a concept for the product, developing content and visuals, and pretesting and revising materials. Clear & Simple is concise and easy to use, with key information presented in bulleted lists. It contains many illustrations and offers real world examples. The guide includes a list of low-literacy publications and software and is available at http://www.nci.nih.gov/cancerinformation/clearandsimple.

The Right to Understand: Linking Literacy to Health and Safety Training**. (1994). Authors: Szudy and Arroyo. Labor Occupational Health Program, University of California at Berkeley.**

This manual is designed to help safety and health trainers meet the needs of workers with limited literacy skills. However, it offers clear and focused tips and processes for the development of any materials. Contents include sections on how to develop easy-to-read materials, how to evaluate materials, and how to conduct trainings for people with a wide range of literacy skills. The 'How To' section includes writing, design, and illustration tips. The 'Evaluation' section provides a quick checklist, instructions on using the Fry formula, a guide to field testing materials, sample questions for focus groups, and many case studies on field testing. For more information go to http://socrates.berkeley.edu/~lohp/Publications/Literacy_And_Safety_Training/literacy_and_safety_training.html.

***Creating Plain Language Forms for Seniors: A Guide for the Public, Private and Not-for-Profit Sectors.* (1998). National Literacy and Health Program and the Canadian Public Health Association.**
This guide, developed with attention to the needs of seniors, offers clear guidelines for creating forms in plain language. However, the many tips offered can be applied to all health-related forms. The guide includes a section on how to use clear verbal communication with patients who need help filling in forms. The guide also includes sections on the benefits of plain language, forms as barriers, and a Plain Language Forms Tool Kit. Appendices include a glossary of plain words, and instructions on how to use the SMOG. For more information, contact the Canadian Public Health Association at www.cpha.ca.

***Beyond the Brochure: Alternative Approaches to Effective Health Communication.* (1994). AMC Cancer Research Center and Centers for Disease Control and Prevention.**
Beyond the Brochure was developed by the AMC Cancer Institute in the mid 1990s. The goal of the writers is to help readers consider multi-media education materials. This guide presents innovative interventions and strategies to reach the audience. The guidebook begins with a section on audience assessment and participatory processes. The section on pretesting materials includes basic guidelines for discussion guide development. This publication is available at no cost at www.cdc.gov/cancer/nbccedp. Click on 'Resources and Publications'.

Resources for Creating and Assessing Web sites

Bobby: www.cast.org/bobby

Bobby is a free Web-based service to help identify and repair significant barriers to access. Bobby was created by the Center for Applied Special Technology (CAST). To use Bobby, you simply enter the URL of the Web site you want tested and click Submit. Bobby limits the number of pages it will check, but you can test an entire set by downloading a version of Bobby.

The Children's Partnership: www.childrenspartnership.org

The Children's Partnership (TCP) is a national non-profit organization that informs leaders and the public about the needs of America's children. TCP recently published a report titled "Online Content for Low-Income and Underserved Americans: The Digital Divide's New Frontier." The report examines and makes recommendations about Internet content for underserved Americans, including those with limited literacy skills. The full report is available on TCP's Web site.

Jakob Neilsen's site: www.useit.com

This site provides tips for the design of Web pages, including information on writing for the Web and guidelines for improving usability of the Web for people with disabilities.

The Trace Center, a resource on Web design: www.trace.wisc.edu/world/Web

This site is focused on usability and access. It includes information on: Web site guidelines, Web access tools, resources on disability and Web use, forums for discussing accessibility issues, and organizations addressing Web access issues.

Web site Usability: A Designer's Guide. (1999). Authors: J. Spool. T. Scanlon, W. Schroeder, et al. San Francisco, CA: Morgan Kaufmann Publishers.

This guide offers practical advice for the design of Web pages, and includes a chapter on readability and page layout. The authors provide a guide for calculating the Fog Index and suggest ways to scan Web pages. For more information, contact Morgan Kaufmann Publishers at www.mkp.com.

Oral Exchange

Clear communication between patients and hospital or health center staff is essential. Staff members need to communicate well with patients during encounters such as phone inquiries, help desk questions, intake procedures, medical examination discussions, consent procedures, and discharge preparation information. This section provides several suggestions for improving oral exchange.

Recommendations for Oral Exchange Improvement

We suggest that staff members follow these recommendations to ease the burden on patients:

- Ask patients how they learn best (reading, listening).
- Match teaching approaches to learning styles.
- Present a reasonable amount of information at one time.
- Avoid using organizational jargon or specialized words.
- Encourage questions.
- Assume the burden of clear communication by asking if the information or directions were clearly presented. For example, say, "Am I clear?" instead of, "Do you understand?"
- When appropriate, ask patients to repeat key points as though they were telling what they learned to a family member or friend. This approach enables the staff member to fill in missing information.
- Discuss key points of DVD/videos if materials were used in preparing a patient for a test or surgery.

Resources Related to Oral Exchange

Institute of Medicine (IOM). (2004). *Health literacy: A prescription to end confusion*. Washington, DC: The National Academies Press.

Roter, D. (2005). Health literacy and the patient-provider relationship. In J.G. Schwartzberg, J.B. VanGeest, & C.C. Wang (Eds). *Understanding health literacy; implications for medicine and public health.* (pp 87-100). Washington, DC: American Medical Association Press.

U.S. Department of Health and Human Services (HHS). (2003). *Communicating health: Priorities and strategies for progress—Action plans to achieve the health communication objectives in Healthy People 2010*. Washington, DC: U.S. Government Printing Office.

Weiss, B.D. (2003). *Health literacy: a manual for clinicians.* Chicago: American Medical Association Press.

Technology

While numerous healthcare facilities use technology for the delivery and collection of health information from patients, most facilities are not yet using their existing technology to its full capacity. Consider the **location** as well as the **use** of patient-facing technologies in your hospital or health center.

In this section, we offer examples from the field in order to spark new ideas for augmenting the use of existing technologies in your facility. The recommendations focus on the following key areas:

- Televisions
- Telephones
- Computers
- Kiosks

Recommendations for Television Improvement

Televisions are useful for orienting and educating patients, especially while they are waiting for their appointments. This waiting period offers an opportunity to orient people to the facility and to services provided and can also offer education about particular health issues.

Televisions can be located in…

- Lobbies and other waiting areas.
- Testing sites.
- Resource rooms, learning centers, family rooms, and libraries.
- Pharmacies.

Televisions can be connected with DVD players/VCRs to….

- Play orientation videos/DVDs about the hospital or health center.
- Play preparation videos/DVDs for tests and surgeries.
- Play general educational videos/DVDs.

Recommendations for Telephone Improvement

House telephones can connect patients with staff or volunteers for help with directions, translations services, or filling out forms. All house telephone should be identified with a clear and visible sign.

House telephones can be located in…

- Hallways.
- Lobbies and other waiting areas.
- Resource rooms, learning centers, and libraries.
- Pharmacies.

House telephones can connect people with a person who can…

- Speak multiple languages or who can link them to translation services.
- Provide clear and simple directions to all locations and services throughout the facility.
- Help patients fill out forms such as health history forms.

Telephones can be used to remind patients about upcoming appointments and any needed preparation for tests or surgeries. Studies show that reminding patients about their appointments can reduce no-show rates. In addition, reminder phone calls help ensure that patients come prepared for tests or surgeries.

- Call patients to remind them about their appointments a day or two before their scheduled visits.
- Call patients who are coming in for a test or surgery that requires preparation and ask the following: What are you doing today to prepare for your test (or surgery)? What will you do tomorrow to prepare?

Recommendations for Computer Improvement

Computers can be used to provide patients with information and to collect information from them.

Computers can be located in…

- Lobbies and other waiting areas.
- Resource rooms, learning centers, and libraries.
- Pharmacies.

Computers can include programs that can…

- Provide patients with orientation materials.
- Provide patients with preparation information for tests and surgeries.
- Provide patients with educational materials.
- Collect health history information from patients.
- Bring patients through a basic screening process.
- Enable providers to share parts of medical records with patients.
- Connect to the Internet (ideally to trusted information sites).
- Be geared towards patients with average or limited literacy skills.
- Have audio components.

Computers can also…

- Have headsets connected to them.
- Have some indication of where to find help/assistance.
- Have touch-screens.

Recommendations for Kiosk Improvement

"Kiosks", also known as a "healthcare kiosks" or "self-service kiosks", consist of free-standing computer consoles and can be used to answer questions, provide information, and enter data. Since kiosks contain computers, many of the recommendations we make for computers overlap with our recommendations for kiosks.

Kiosks can be located in…

- Lobbies and other waiting areas
- Resource rooms, learning centers, and libraries
- Pharmacies

Kiosks can include computer programs that can…

- Provide patients with orientation information.
- Provide patients with preparation information for tests and surgeries.
- Provide patients with educational materials.
- Collect health history information from patients.
- Bring people through a basic screening process.
- Enable providers to share parts of electronic medical records with patients.
- Be geared towards patients with average or more limited literacy skills.
- Have programs that have audio components.

Kiosks can also…

- Have headsets connected to them.
- Have some indication of where to find help/assistance.
- Have touch-screens.

Policies & Protocols

Change can be difficult for people and for institutions – it often disrupts the normal course of events and daily activities. Change can be facilitated when people being asked to make a change are part of a problem solving effort. Clearly defined policies and protocols help support action.

Policies reflect organizational needs and priorities. The recommendations offered in this section are only general examples.

Recommendations for Policy & Protocol Improvement

The following suggestions can promote health literacy and ease the burden on patients:

Policies & Protocols for Print Materials

- Use plain, everyday words and phrases in all print materials.
- Write all print materials for patients at a grade level of 8 or below.
- Consider which materials are important to translate into another language.
- Pilot all new materials with members of the intended audience.
- Apply these protocols to:
  - → Community relations (mailings and promotional materials)
  - → Patient orientation (welcome information and patients' rights &
  - → Responsibilities)
  - → Follow-up notifications (test results, appointment reminders, and billing)
  - → Patient education materials (disease and medicine descriptions)
  - → Legal materials (informed consent forms)
  - → Forms patients fill out (medical history forms)
  - → Discharge preparation information

Policies & Protocols for Oral Exchange

- Train and encourage staff, volunteers, and translators to use plain, everyday words and phrases in all discussions with patients.
- Train and encourage translators to use plain, everyday words and phrases.
- Provide patients with opportunities to ask questions about protocols and policies.

Policies & Protocols for Staff and Volunteer Orientation

- Develop and hold orientation programs.
  - → Include a description during the orientation of all staff and volunteers of the physical layout and design of the healthcare facility.
  - → Include a discussion during the orientation of all staff and volunteers about literacy issues.
  - → Include information during the orientation of all staff and volunteers about patient population characteristics (cultures, languages, and other demographics).

- Tailor orientation programs for different groups of staff. Be sure to include:
  - → Administrative staff (support staff, program coordinator)
  - → Intake staff
  - → Discharge coordinator
  - → Nursing (RNs, LPNs)
  - → Medical (MDs, NPs, PAs, DOs, DMDs)
  - → Pharmacy (pharmacists, educators, technicians)
  - → Allied health professionals (social workers , physical therapists,
  - → occupational therapists, educators, medical assistants, x-ray technicians)
  - → Translation service staff
  - → Telephone services staff
  - → Custodial staff
  - → Volunteers

Policies & Protocols for Staff Skills Building

- Offer on-site trainings or workshops about health literacy issues related to oral exchange and print communication for all relevant staff and volunteers.
- Offer CME credit courses related to health literacy and communication for all represented professional staff.
- Offer adult education courses to build literacy skills for employees.
- Inform all staff about the adult literacy resources in the community. If asked, staff could tell a patient where to get help to improve literacy skills.
- Provide staff and volunteers with a resource room with DVDs, booklets, Web sites, etc. about health literacy issues.
- Focus skill building on use of available technologies (i.e., exam room computers, use of electronic medical records).

Resource

Institute of Medicine (IOM). (2004). *Health literacy: A prescription to end confusion*. Washington, DC: The National Academies Press.

IV

Background & Resources

This section of the guide provides background information on health and literacy as well as a list of current resources.

Background Information on Health and Literacy

Overview

The published findings from the 1992 National Adult Literacy Survey (NALS) and the 2003 National Assessment of Adult Literacy (NAAL) generated headlines of shock and dismay. Indeed, findings indicate that about half of U.S. adults do not have the reading, writing, and math skills commonly assumed. As a result, they are not able to use, with accuracy and consistency, available print materials for everyday activities such as those related to health and safety, finance, or civic engagement. An analysis of health literacy among U.S. adults indicates that half of U.S. adults would be expected to have a great deal of difficulty successfully performing a broad range of health-related activities.

The field of inquiry known as *health literacy* focuses on critical communication issues in the health fields as well as on explorations of links between literacy skills and health outcomes. The Institute of Medicine (IOM) report *Health Literacy: A Prescription to End Confusion* suggests that health literacy be considered an interaction between social demands and the skills of individuals. The IOM committee concluded that more than 90 million U.S. adults may lack the needed literacy skills to effectively use the U.S. health system (IOM, 2004). The Agency for Healthcare Research and Quality (AHRQ) 2004 evidence report *Literacy and Health Outcomes* concludes that low literacy, as measured by poor reading skills, is associated with a range of adverse health outcomes (Berkman et al., 2004). Health literacy is on the national agenda as researchers continue to explore the links between literacy skills and health outcomes, as well as monitor and measure the match between health workers' expectations and patients' skills.

Demands and Expectations

More than 600 studies published in public health, medical, dental, and mental health journals are focused on the match or mismatch between health-related materials and messages and the skills of the intended audience. The written materials under study have included informed consent materials, patient education booklets, insurance packages, medical directives, public health messages, and reports, addressing a wide array of health issues and representing a broad scope of health disciplines. In general, findings indicate that unnecessary use of scientific terms, professional jargon, complex sentences, poorly organized text, faulty assumptions about background information, and other measured text characteristics hamper communication efforts. Study findings indicate a troublesome mismatch between the reading grade level of health materials (one measure of demand) and the average reading skills of U.S. adults.

Literacy Skills of U.S. Adults

Most studies calculate average reading skills at about the 8th grade level. However, educators do not associate literacy with reading alone, but instead envision and measure a constellation of related skills that include reading, writing, basic mathematical calculations, oral speech, and speech comprehension. The National Literacy Act of 1991 proposed that *functional literacy* is:

> The ability to read, write, and speak and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential.

In the early 1990s, this definition of functional literacy was accepted by the U.S. and other industrialized nations as the foundation for examinations of adult literacy skills. Throughout the 1990s, three literacy components—reading, writing, and mathematical calculations— were measured in 22 industrialized nations (Kirsch, 2001). Oral language skills had been assessed as part of an earlier and smaller survey but were not assessed in the 1990s, in part because of time constraints, machinery, and because of a perceived burden on survey participants who were all interviewed in home settings. The 2003 literacy assessment survey contained an oral language component captured on computers. Initial analyses of the 2003 data were provided in December 2005 and analyses of oral skills are forthcoming. The national and

international examinations of adults' literacy skills focused on adults' ability to use print materials to accomplish everyday tasks. The survey developers drew materials from six domains of adult activities in order to represent literacy activities of everyday life. These included text materials related to: home and family, health and safety, community and citizenship, consumer economics, work, and leisure and recreation.

Participants were asked to undertake tasks associated with materials focusing on these six areas. For example, participants were given a label from an over-the-counter pediatric medicine and were asked to use the materials to determine how much medicine to give a child of a specified age and weight.

The 1993 NALS report and the 2005 NAAL report provide literacy proficiency scores for three types of print materials:

- **Prose Literacy:** measures of proficiency focused on tasks involving continuous texts with full sentences in paragraph format.
- **Document Literacy**: measures of proficiency focused on tasks involving texts formatted as lists, charts, and graphs.
- **Quantitative Literacy:** measures of proficiency focused on tasks involving text with numbers requiring the application of basic mathematical processes (addition, subtraction, multiplication, and division).

All of the existing large-scale surveys of adult literacy skills are based on materials consisting of prose, and documents, as well as both continuous and non-continuous texts requiring one or more arithmetic operations. The tasks associated with the materials include finding information and identifying or constructing responses from the available information. Materials and tasks for these surveys are calibrated for level of complexity and difficulty. The assessments consider both the difficulty of the text and the complexity of the task. A simple text is generally short and without distracting information. A simple task involves locating a word or sentence, or performing a clearly defined mathematical process. More complex tasks involve locating several pieces of information, comparing or contrasting information provided, interpreting meaning, or responding to an inquiry by finding and using information in a text. Proficiency was assessed based on accuracy and consistency (Kirsch, 2001).

Findings were reported in 1993 by score level and in quintile groupings, averaged for various population groups, and analyzed through a wide range of critical variables such as educational background, country of origin, and economic status. In addition to assessing participants' literacy skills, the NALS gathered extensive background information on demographic and socioeconomic characteristics and on literacy practices (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993).

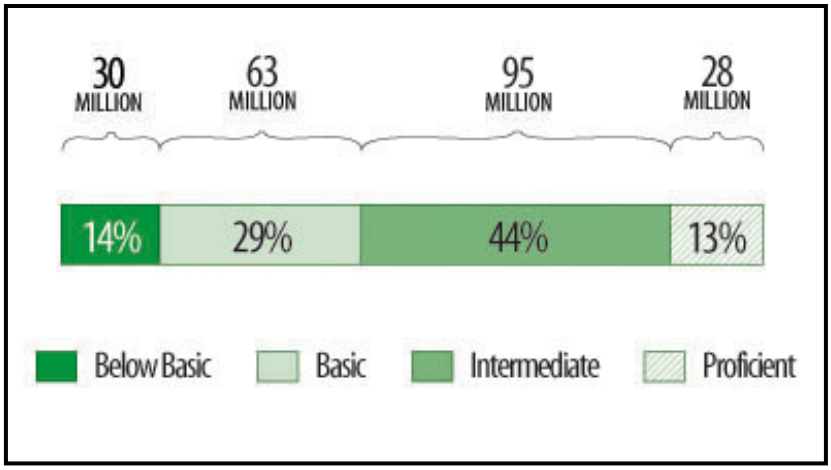
NALS scores ranged from 0 to 500. The scores in 1993 indicate that 22% of U.S. adults fall into the lowest skill category. NALS level 1 represents scores of 0 to 225 and signifies very limited abilities to use text. People scoring between 0 and 175 are considered unable to use English language text. However, more than half of adults at this level can generally perform simple and routine tasks using brief and uncomplicated texts and documents. For example, adults at NALS Level 1 can generally locate a piece of information in a news story or on a simple form such as a social security card. An additional 27% of U.S. adults score in NALS Level 2 with scores ranging from 226 to 275. These adults can, with accuracy and consistency, locate information in somewhat more complex text and make low-level inferences using print materials. The 49% of adults who score in these two lowest levels can locate information but are generally not able, with accuracy and consistency, to find and integrate two related pieces of information, to use long or dense materials, or to determine appropriate arithmetic operations based on information provided.

Scores below 275 indicate a limited ability to use print materials with accuracy and consistency. Working adults have stronger literacy skills than those who are not employed or have retired. As would be expected, literacy skills are stronger amongst U.S.-born adults than they are for those who have immigrated to the United States from non-English speaking countries. Those with higher incomes are more likely to have stronger skills than are those without resources or who are living in poverty. European-Americans (whites) have stronger literacy proficiencies than do minority population groups such as Hispanics and African-Americans. Educators and economists note that the challenges of industrialized societies require high-level literacy skills (in the range of 275 and above). NALS findings indicate that average scores for U.S. adults in 1992 were 273 for prose, 267 for document, and 274 for quantitative literacy scores.

The 2005 analysis of the 2003 National Assessment of Adult Literacy (NAAL) modified the reporting of performance levels to more closely reflect educational categories of need (below basic, basic, intermediate, and proficient). The below basic level includes skills necessary to perform no more than the most simple and concrete literacy skills. Basic skills are those necessary to perform simple and everyday literacy activities. Intermediate skills are those necessary to perform moderately challenging literacy activities. Proficient skills are those necessary to perform more complex and challenging literacy activities.

Overall, literacy is the lowest for adults who did not complete high school (Kutner, Greenberg, & Baer, 2005). The following graph illustrates the range of scores.

Findings from the 2003 National Assessment of Adult Literacy

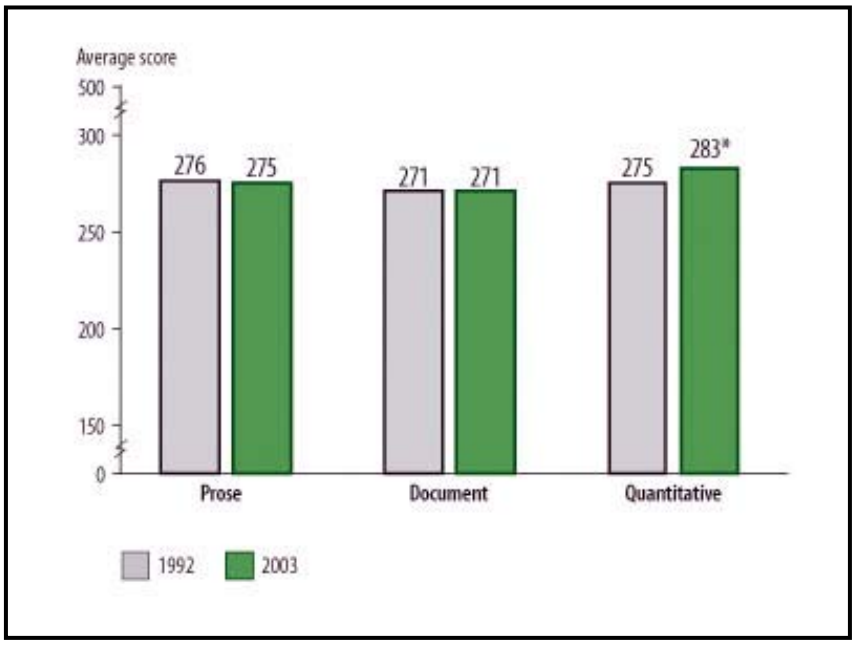


SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

The graph on the following page, offers a comparison of findings from the 1992 and the 2003 data. The 1992 data was modified to reflect the new categories and a reconfigured measure of accuracy. Findings indicate little change over time. Although the educational attainment of U.S. adults increased between 1992 and 2003, prose literacy decreased for all levels of educational attainment. As was true in 1992, literacy was lowest for adults who did not complete high school (Kutner et al, 2005).

Overall, findings from the national surveys indicate that a vast majority of U.S. adults can read and do report reading. However, the average literacy scores for adults in the U.S. indicate limited ability to use print materials found in everyday life to accomplish everyday tasks.

Average Scores of U.S. Adults for Prose, Document, and Quantitative Literacy Comparison of Findings from the 1992 NALS and the 2003 NAAL



*Significantly different from 1992.
NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed due to language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Health Literacy Skills of U.S. Adults

A baseline for the health literacy skills of U.S. adults was established in 2004 by researchers at the Harvard School of Public Health and the Educational Testing Services. *Literacy and Health in America* (Rudd, Kirsch, & Yamamoto, 2004) reports on an analysis of health-related items drawn from the large-scale surveys of adult literacy skills, all of which adopted the functional definition of literacy as noted above. A new scale, the Health Activities Literacy Scale (HALS) was constructed through an examination of all items from all large-scale surveys conducted before 2003 to identify and code health-related materials and tasks. These surveys include

the assessment of the nation's young population (Kirsch & Jungeblut, 1986), the assessment of unemployed and economically disadvantaged adults (Kirsch, Jungeblut, & Campbell, 1992), the National Adult Literacy Survey (Kirsch et al., 1993), and the International Adult Literacy Surveys (Organization for Economic Co-Operation and Development, 1995, 2000).

The HALS, consisting of 191 items, represents a range of health activities for health promotion, health protection, disease prevention, care and maintenance, and systems navigation. Scores were linked to the NALS database, which includes information on the literacy proficiencies of a sample of 26,091 adults aged 16 and older as well as supplemental samples from 12 states yielding state representative samples (Kirsch et al., 1993).

HALS findings indicate that large percentages of at-risk groups in this country do not have adequate skills to meet many of the health-related demands they are likely to encounter. Findings indicate that the distribution of health-related literacy is not independent of general literacy skills at a population or subpopulation level. While there is clearly some unique procedural and declarative knowledge that is needed to function in health contexts, those with more general literacy skills will also be more likely to have stronger health literacy skills. Consequently, large numbers of adults would be expected to have a great deal of difficulty successfully performing a broad range of health-related literacy activities found in the U.S.

The designers of the 2003 NAAL worked closely with the U.S. Department of Health and Human Services to include additional health-related items on the 2003 adult literacy survey instrument so that a separate report could focus on health literacy skills of U.S. adults. New stimulus materials were included as were 28 health literacy tasks designed to elicit respondents' skills for locating and understanding health-related information and services. These tasks focused on clinical, prevention, and navigation domains. This change represents a purposive inclusion of health literacy skills. Findings, in a September 2006 report titled, The Health Literacy of America's Adults, are based on performance for these 28 tasks. The report states that the majority of U.S. adults do have skills necessary to perform *moderately challenging* health literacy activities.

The average health literacy scores were 248 for women and 242 for men. Adults in the oldest age group, 65 and older, had lower average health literacy scores (214) than adults in younger age groups (scores range from 244 to 256). The average health literacy score increased with each higher level of educational attainment. Those with less than a high school degree/GED certificate had an average health literacy score of 184. High school graduates/GED certificate had an average health literacy score of 232. Those with a 4-year college degree had an average health literacy score of 280.

Findings from the 1992 NALS and from the 2003 NAAL indicate that a significant number of U.S. adults have low level literacy skills that constrain their participation in society and in the economy. The early analysis of health literacy skills based on data from 1992 and the more recent analysis of 2006, based on a purposive sample of health items, indicate that U.S. adults have health literacy skills that constrain or compromise their participation in health-related activities.

> **Note:** A direct comparison of findings from the 1992 and 2003 surveys is difficult because of changes in the structure of the analysis. First, 3% of the population was not included in the NAAL analysis (those who could not communicate in either English or Spanish or who had a mental disability). Next, NAAL tasks were mapped to a point on the scale where an adult would have a 67% probability of doing the task correctly while NALS tasks were mapped to a point on the scale where an adult would have an 80% probability of doing the task correctly.

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Additional Resources: Health and Literacy

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APPENDICES

Appendix I: *Partners for Action Examples*

Appendix II: *Needs Assessment Tools*

Appendix I: Partners for Action Examples

Although health literacy is among the top 20 items on the national agenda, it is still a new or unfamiliar topic for many people, even for those within the healthcare field. Awareness raising activities can take many forms, and each can help the staff of your healthcare facility become more knowledgeable about and more invested in health literacy discussions, research, and change.

A health literacy initiative can begin with any number of activities and could include one or more of the following activities:

- Presentations
- Tours
- Workshops
- Community Outreach
- Ongoing Collaboration

Many of these activities can be carried out within a healthcare facility with existing staff and through links to continuing education. At the same time, professional development activities such as presentations and workshops can help build skills but can also provide excellent opportunities for networking with other agencies and for forming partnerships. Staff responsible for health communications or marketing activities within your healthcare facility may want to be involved in planning partnership work.

A number of potential partners could provide presentations or overviews of literacy skills and their relationship to health outcomes. For example, state or city directors of adult education may be able to provide an overview of the literacy skills of U.S. adults based on the findings of the 1992 National Adult Literacy Survey (NALS) and the 2003 National Assessment of Adult Literacy (NAAL). Adult educators can provide an overview of the literacy skills of adults in the neighborhoods your hospital or health center serves. Adult education classes may provide a venue for pilot testing materials. Librarians can offer an important perspective on access to information, as well as on use of library-based computers, and patients' Internet needs. Social service providers such as case managers or program advocates may provide additional insight into patients' needs and the literacy barriers they encounter as they make decisions about health insurance coverage, complete forms, or make sense of letters, bills, and follow-up information.

Strategy for Action

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is linking health literacy to patient safety. The Institute of Medicine's (IOM) report, *Health Literacy: A Prescription to End Confusion*, recommends that healthcare systems:

- Engage patients in the development of health communications.
- Explore creative approaches to communicate health information.
- Establish methods for creating health information content in appropriate and clear language.
- Include cultural and linguistic competency as an essential measure of quality of care.

Some institutions are linking health literacy action to costs. For example, savings not often considered are related to costs incurred when the burdensome structure, format, and language used in forms as well as in mailed letters and test results necessitate staffing to help people understand, manage, and respond appropriately. Action within your healthcare facility could serve both patient and institutional needs and interests. On the following pages, we provide you with case examples of partnerships from the field and include details of the activities carried out through these partnerships including presentations, tours, workshops, community outreach, and ongoing collaborations.

We thank Emily Zobel Kontos and Sarah Oppenheimer, who conducted interviews and developed the cases for this section.

Presentations

Health literacy topics of interest can vary. However, you will find information within this guide that offers a focus on health literacy of U.S. adults, health literacy research findings, health literacy research opportunities, and best practice options for working with adults who have average or limited literacy skills. Initial health literacy activities can begin at any number of levels including:

- Health Literacy Grand Rounds
- Health Literacy Presentation or Forum
- Professional Continuing Education Programs

Consider engaging potential partners in health literacy work by inviting staff of educational and social service agencies and community volunteers to help plan a health literacy forum. Set aside time during the forum for interdisciplinary networking. You may also be in a position to encourage or support monthly workgroup meetings as an opportunity for cross-sector communication and action.

EXAMPLE

LOCATION: Morgantown, West Virginia

PARTNERS

- Department of Family Medicine, West Virginia University School of Medicine
- Harvard School of Public Health

ACTIVITY

- Health Literacy Grand Rounds came to West Virginia University School of Medicine

We provide more details about this case on the next page.

HARVARD SCHOOL OF PUBLIC HEALTH FACULTY DELIVERS GRAND ROUNDS AT WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE

BACKGROUND

As part of a residency-training grant initiative at West Virginia University School of Medicine, the principal investigator invited a health literacy expert from the Harvard School of Public Health to present a Family Medicine Grand Rounds on health literacy and on links between literacy and health outcomes. Attendance was "required" for some residents and "highly recommended" for others because the presentation met criteria for competencies that are required of all residency programs for accreditation.

ACTIONS TAKEN

Of the 330 residents/fellows who were in training at West Virginia University School of Medicine at the time, 33 (10%) attended the presentation. In addition to residents, approximately 70 faculty, staff, or students from a cross-section of health science disciplines and roles (nurses, allied health, dentistry, community medicine, librarians and others) attended. The Grand Rounds presentation stimulated interest and helped focus attention on the curriculum development process underway to improve communication with patients with low literacy.

Faculty members at West Virginia continue to apply what they learned during the health literacy Grand Rounds. In follow up discussions, a faculty member shared a story about drawing pictograms as he talked with a patient; another created a unique identification system for prescription bottles for a patient. Faculty members now ask their residents and students, "*Are you sure that the patient understands?*" The clinic operations chief plans to conduct an assessment of the clinic registration process to reduce barriers to access, and asked that the registration personnel are prepared to consistently offer assistance to all patients filling out forms.

LESSON LEARNED

- A one-time presentation can make a difference in the sensitivity and awareness of literacy issues in this clinical environment.

Tours

Health centers and hospitals are work places for people from various fields, including medicine, nursing, pharmacy, laboratory sciences, and the service industry. The structures of the buildings are shaped by a scientific and medical logic that is not necessarily intuitive to those not trained in these fields. In addition, the language used by the people working within the facility and the written words used in the various postings and materials are often not the words of everyday speech (Rudd, Renzulli, Pereira, & Daltroy, 2005). A walking tour of a hospital or health center that pairs a staff member with someone new to the facility can offer insights not easily gathered by staff or volunteers within the facility.

EXAMPLE

LOCATION: Harlem, New York

PARTNERS

- Harlem Hospital
- Mid-Manhattan Adult Learning Center
- New York City Mayor's office
- Literacy Assistance Center of New York City

ACTIVITY

- Harlem Hospital staff came to the Mid-Manhattan Adult Learning Center
- Mid-Manhattan Adult Learning Center students took tours of Harlem Hospital

We provide more details about this case on the next page.

MID-MANHATTAN ADULT LEARNING CENTER STUDENTS TOUR HARLEM HOSPITAL

BACKGROUND

Several adult education students from the Mid-Manhattan Adult Learning Center reported negative experiences at hospitals and that they kept away from health facilities as a result. Many of the students were confused about the physical layout of hospitals and wanted to understand more. Additionally, some students expressed an interest in pursuing careers in healthcare. Teachers from the Mid-Manhattan Adult Learning Center contacted Harlem Hospital. The medical director of Harlem Hospital was instrumental in engaging with the adult literacy program and formed this partnership.

ACTIONS TAKEN

The medical director of Harlem Hospital arranged for several of the department heads at the hospital to visit the Mid-Manhattan Adult Learning Center. The heads of the pharmacy, emergency room, and managed care came to three different classes and spoke with the students about how to navigate services. Students asked many questions. As a follow up to these classroom discussions, Harlem Hospital hosted a program at the hospital for students from the Mid-Manhattan Adult Learning Center, their friends and family, and members of the community. Staff from many departments, including maternity and emergency, presented an overview of their services. This forum was covered by the media and was noted in print and local television news. The director of the emergency department, who had worked all night, was present the next morning to give students a tour of the department. Students developed a short video. The students were incredibly appreciative and told their fellow students what they saw. This presentation was also videotaped and was widely viewed.

LESSONS LEARNED

- Leadership from the top is important in forming partnerships.
- The partnership enhanced the reputation of Harlem Hospital within the community.

Workshops

A health literacy workshop provides an opportunity to offer information on current issues in health literacy, potential areas for programmatic change, and for research studies. A presentation may be tailored to coincide with current institutional projects or areas of concern. Hands-on workshop ideas may focus on development of plain language materials, use of assessment tools, or the development of research protocols.

You may wish to begin health literacy work through a focus on print materials. Well over 500 studies published in public health and medical journals over the past three decades indicate that the level of difficulty of health materials (measured in terms of reading level) generally exceeds the reading ability of the people for whom they were designed (Rudd, Moeykens, & Colton, 1999; Rudd, Colton, & Schact, 2000; Rudd, Anderson, Nath, & Oppenheimer, in press). A fully developed workshop plan is included in this guide as an example of a type of workshop that could be offered to staff responsible for creating or assessing forms, follow up letters, or educational materials.

EXAMPLE

LOCATION: Boston, Massachusetts

PARTNERS

- Massachusetts General Hospital's (MGH) Library System
- University of New England's Health Literacy Center

ACTIVITY

- Plain language workshop came to MGH

We provide more details about this case on the next page.

PLAIN LANGUAGE COMES TO MASSACHUSETTS GENERAL HOSPITAL

BACKGROUND

The director of one of Massachusetts General Hospital's (MGH) patient libraries was interested in how the library system at MGH could begin to address health literacy issues. She was concerned that the resources in MGH's patient libraries and the health education materials that the MGH produced were not meeting the needs of their patients. She brought her concerns to the multidisciplinary patient education committee at MGH. The committee decided they first needed to better understand what health literacy was before they could address the issue. A health literacy expert was asked to speak. As a follow up, a plain language expert at the University of New England's Health Literacy Center was invited to organize a workshop. The MGH patient education committee members enrolled in the workshop in order to increase their understanding of health literacy and the use of plain language in materials development.

ACTIONS TAKEN

After attending the health literacy workshop, some members of the patient education committee developed a subcommittee that meets monthly to discuss issues of plain language. Committee members frequently bring materials they are developing to the meetings so they can receive feedback and suggestions. The plain language subcommittee has also developed tip sheets for all hospital employees focused on how to use plain language and improve their communication. Additionally, the plain language subcommittee invites guest lecturers throughout the year to speak to the staff about the importance of health literacy and plain language communication.

LESSONS LEARNED

- Health literacy awareness building is important, and so is maintaining momentum.

Ongoing Collaborations

Ongoing collaborations between hospitals, health centers, and libraries can enhance community access to resources, bring libraries into medical settings, and bring valuable information from medical settings into the community. Resource librarians have moved from a focus on helping clients use resource books to helping clients access information on Web sites. In addition, it is important to incorporate the voice of the community. Consequently, written materials, including announcements and letters of invitation, as well as oral presentations, should be carefully crafted to reflect everyday words and phrases. You may want to consider the role your healthcare facility plays in the community and how health literacy considerations may support this role.

EXAMPLE #1 (OF 2)

LOCATION: Des Moines, Iowa

PARTNERS

- New Readers of Iowa
- Iowa Health System (IHS)

ACTIVITIES

- Collaborative
  - Development of 10 organizational teams at IHS each with a New Readers of Iowa member.
  - Several materials review, revision, and development projects.

We provide more details about this case and another case on the following pages.

THE DEVELOPMENT OF THE NEW READERS OF IOWA / IOWA HEALTH SYSTEM (IHS) COLLABORATIVE

"I think the bottom line is that neither of us can be successful alone. We need each other's minds and experiences."- Archie Willard, New Readers of Iowa

BACKGROUND

In 2003, the New Readers of Iowa, an advocacy group that focuses on raising awareness around adult education and literacy, decided to center its 13th annual conference on health literacy. New Readers of Iowa wanted the medical sector's perspective on health and literacy, and contacted the Iowa Health System (IHS). Thus, the New Readers of Iowa/IHS Collaborative began. Since its inception, the New Readers of Iowa/IHS Collaborative has addressed many issues related to health and literacy including patient safety, disease prevention and screening, and access to healthcare coverage. The group meets twice a year – once for a planning meeting and again at the annual conference. The dialogue continues throughout the year with e-mail and phone discussions.

ACTIONS TAKEN

IHS has facilitated the formation of ten organizational teams based in hospitals, outpatient clinics, and one call center. They are dedicated to testing and improving health literacy strategies. At least one New Readers of Iowa member is a part of each organizational team, providing first-hand insights into adult learning and health literacy and ensuring a balance between the medical sector's input and that of an adult who has limited literacy skills. The New Readers of Iowa/IHS Collaborative has also initiated several materials review, revision, and development projects. These projects engage New Readers of Iowa to advise IHS hospitals and clinics on their patient materials. This collaborative work has led to changes in hospital informed consent forms and patient education sheets. In addition, the collaborative has provided awareness-raising among healthcare staff and led to formal trainings.

LESSONS LEARNED

- Communication between partners is critical.
- Relationships should be sustained.

On the following page we provide you with a second case example related to ongoing collaborations:

EXAMPLE #2 (OF 2)

LOCATION: Queens, New York

PARTNERS

- Queens Health Network (QHN)
- Queens Borough Public Library (QBPL)

ACTIVITIES

- QHN brought health information to QBPL.
- QBPL brought an understanding of the population of Queens to QHN.

INFORMATION EXCHANGE BETWEEN THE QUEENS HEALTH NETWORK AND QUEENS BOROUGH PUBLIC LIBRARY

BACKGROUND

The Queens Health Network (QHN), comprised of 23 institutions, was having a difficult time delivering health information to their diverse patient population, speaking over 127 languages. In order to better serve their patients, the executive director of the QHN wanted to improve communication, increase available resources, and improve the network's information technology. As a first step, the executive directors of the QHN and the Queens Borough Public Library (QBPL) developed working groups to address the initial concerns of both the library and hospital staff. The three main areas of interest were identified as prevention, disease management, and overall community improvement.

ACTIONS TAKEN

The partnership between QHN and QBPL brought health information to the library system and brought a deep understanding of the population of Queens to the QHN. Some examples of this partnership include:

- The QHN hosts health screenings, health fairs, and specific health workshops at the library branches.
- The libraries advertise the health clinics and hospitals, distribute information on screening and early detection of disease, and help with immediate dissemination of important health information.
- The adult educators at the library work with the QHN doctors to help them identify and use plain language materials. Doctors are invited to visit, observe, and/or present in adult education classes.

LESSONS LEARNED

- Leadership from the top of both partners is critical.
- Common interests and goals form the foundation for work.

References for Partners for Action Examples

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Appendix II: Needs Assessment Tools

The needs assessment activities in this section are designed to offer insight into literacy-related demands and barriers. These activities can set the foundation for the *Health Literacy Environment Review:*

Navigation Activities

- ☐ Telephone Assessment
- ☐ Walking Interview Activity

Print Communication Activities

- ☐ Materials Assessment Workshop
- ☐ Materials Assessment Tools

Oral Exchange Activity

- ☐ Oral Exchange Survey

Technology Activity

- ☐ Current Technology Assessment

Findings from these pre-review activities will help inform the *Health Literacy Environment Review.*

Navigation: Telephone Assessment

First contact with a hospital or health center is often over the telephone. A telephone call can determine a person's first impressions of a healthcare facility. This section of health literacy navigation focuses on this important first encounter.

For this telephone assessment activity, we suggest that you ask 2-3 people of different professional levels (i.e., a nurse, clerk, technician) to independently call the main telephone number of your healthcare facility. You may want to replicate this process for frequently called departments such as labs, radiology, or medical records. Each person should attempt to get directions to the facility from an agreed-upon starting point and request directions via public transportation. The starting point should be a neighborhood or landmark within the general area where the healthcare facility's patients either live or work.

Each caller should complete the *Telephone Assessment Form,* found on the following page. This form focuses on the following key elements:

- Option for live communication
- Speed
- Success (related to purpose of the call)

Once 2-3 people have each called the main number of your healthcare facility and filled out the *Telephone Assessment Form,* please complete **Part 1, Section A** of the *Health Literacy Environment Review*, located on **page 9**. As noted above, you may wish to replicate this activity for frequently called departments as well as the main number.

Telephone Assessment Form

Date: _____Your name: _____
Facility you are calling: _____
Telephone number of facility you are calling: _____
Location you want directions from: _____

Start of call

a. Time phone was answered: _____
b. Telephone answered by: ☐ Automated system ☐ Person

End of call

a. Time call ended: _____
b. Last interaction I had was with: ☐ Automated system ☐ Person

Automated System

1. Is there an option for another language?
   ☐ Yes--If yes, which: _____
   ☐ No

2. Number of menu options before you reach a person?
   ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
   1 2 3 4 5 6 7 No option

3. Number of menu options for directions to the hospital or health center?
   ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
   1 2 3 4 5 6 7 No option

4. Is there an option to repeat menus?
   ☐ Yes
   ☐ No

5. What is the speed of the menu options?
   ☐ Very fast
   ☐ Fast
   ☐ Slow
   ☐ Very slow

6. Was the call successful? (Were you able to get what you needed?)
   ☐ Yes
   ☐ No

Reaching a Person

1. Does the person speak a language in addition to English?
   ☐ Yes--If yes, which: _____
   ☐ No

2. What is the tone of the person's voice?
   ☐ Warm/ welcoming
   ☐ Neutral
   ☐ Cold/standoffish

3. What is the speed of the person's speech?
   ☐ Very fast
   ☐ Fast
   ☐ Slow
   ☐ Very slow

4. Was the call successful? (Were you able to get what you needed?)
   ☐ Yes
   ☐ No

Please continue onto next page→

Comments about the Phone System and Getting Help with Directions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: These findings reflect the impression we want patients to have of our healthcare facility.

Agree	**1**	**2**	**3**	**4**	**5**	**6**	**Disagree**

Navigation: Walking Interview Activity

People entering a healthcare facility for the first time can often see details of the environment that people working within the facility may no longer notice. As a result, newcomers can offer insights to those for whom the workplace has become routine. This section of health literacy navigation focuses on an assessment of the literacy environment.

The *Walking Interview* is an activity that involves locating and finding one's way around a healthcare facility. The *Walking Interview* will help identify what is helpful for people and what gets in the way as they try to navigate a healthcare facility.

The *Walking Interview* activity offers opportunities for the staff of healthcare facilities to identify barriers as well as aids for navigation of facilities. This section includes the following information about the *Walking Interview:*

- Overview and Preparation
- Walking Interview Activity

Once you have completed the *Walking Interview* activity, please complete **Part 1**, **Sections B, C, D, E, and F** of the *Health Literacy Environment Assessment* located on **pages 9-12.**

Walking Interview: Overview & Preparation

Overview

The *Walking Interview* is an activity that involves locating and finding one's way around a healthcare facility. The *Walking Interview* will help identify what is helpful for people and what gets in the way as they try to navigate a facility. It is critically important that the W*alking Interview* not interfere with the day-to-day activities of workers or visitors, and therefore ought to be scheduled with this in mind.

The *Walking Interview* involves:

- A **note taker**: the person who takes notes and asks questions.
- An **informant**: the person who tries to find his/her way to public spaces within the facility such as the waiting areas, hallways, or pharmacy.

Note taker *(the person taking notes and asking questions)*

The best note taker is someone who works within the hospital or health center. If possible, the note taker should first participate in a preparation exercise on the use of the *Walking Interview* guide. This can be done without outside assistance. For example, the note taker should review the *Walking Interview* guide and walk through the area of the proposed tour in advance. Next, two or more note takers should practice conducting walking tours with each other to become familiar with the *Walking Interview* process. If this is not possible, note takers should lead a series of tours with colleagues and/or friends and relatives.

The **note taker** should…

- ☐ Carry a letter of explanation from the facility.
- ☐ Carry a clipboard and the *Walking Interview* guide.
- ☐ Review the rating schema with the informant.
- ☐ Let the informant take the lead on navigating the facility.
- ☐ Ask the informant to talk aloud about his/her feelings, observations, and decisions as you walk together to a specific destination (recommendations of locations are provided in the guide). If necessary, use 'why' prompts such as: *"Why did you stop here?"*, *"Why did you decide to turn left?"*
- ☐ Record or take notes of informant's comments.

Informant *(the person finding his/her way to public locations within the hospital)*

The best informant is a person not familiar with the facility. Examples of potential informants include:

- Registration person at healthcare facility
- Volunteer from information desk at healthcare facility
- Someone from finance or billing department of healthcare facility
- Adult educators
- English for Speakers of Other Languages (ESOL) educators
- Adult learners/new readers
- Community librarians

The **informant** should…

- ☐ Try to find his/her way to the locations identified.
- ☐ Speak out loud about what tools (signs, maps, people, etc.) he/she is using to make decisions about where to go next.
  - *"I am now taking a right-hand turn because the sign says 'Medical Records' and points to the right."*
  - *"I'm not sure where to turn here, so I will ask the man standing over there."*
- ☐ Pause during the walk and share his/her comments with the note taker.

Set-Up

In advance of conducting the *Walking Interview,* the note taker should:

- ☐ Pick a location and time to meet his/her informant. Examples of good locations for a note taker and informant to meet are provided in the *Walking Interview* guide.

Walking Interview: Phone Script or Letter from the Note Taker to the Informant

Focus: *Invitation, Brief Overview, and Appointment*

My name is ___(*your name*)___. I am working with the ___*(sponsoring organization)* . We are trying to understand how people find their way around our ___(*hospital or health center*)___. We want to know what is helpful and what gets in the way.

I would like to find out what you think of __(*name of facility where the tour will occur*)___. This interview is unusual. I think you will enjoy it. We call it a "Walking Interview."

I would like to go with you to / meet you at _(*name of facility where the tour will occur*)__. Once we are there, I would like to walk around with you and hear about how you see things, especially what makes it easy or hard for you to find a specific place. I will be using a tape recorder to keep a record of your comments and reactions. I will also be writing down some notes as we go through the tour. We will not go to a doctor's office or any other part of the healthcare facility where patients are seen. We will spend our time at the entrance, in the lobby, in the cafeteria (if there is one), and walking from the lobby to a place such as an arthritis center or the pharmacy.

This "Walking Interview" will take about one hour.

- ☐ We will pay you _____*(amount)*___ for your time and travel costs.
- ☐ What time of day is best for you?_____
- ☐ What day of the week works for you?_____
- ☐ Can we set a meeting time for _____*(date)*_____ at __*(time)*_____?
- ☐ Can we meet at ____*(specific location in or near the facility)*_____?

Walking Interview: Discussion and Response Tips

1. Statement: **I get lost all the time. I won't be a good person for this.**
   Response: *Actually, you would be perfect. You would be able to tell us what needs to be changed so that people do not get lost.*

2. Statement: **I've never been to that health center or hospital.**
   Response: *Wonderful. We want people who have never been there.*

3. Statement: **I don't have any problems finding my way around that place.**
   Response: *Great, we would like to learn about what makes it easy for you. That will help us figure out what changes will make it easier for other people. We also want to learn how you find your way around so we can teach other people the same skills.*

Walking Interview Guide

Background Information

1) Date: _____

2) Note taker *(please check all that apply):*

- ☐ Healthcare facility staff
- ☐ Adult educator
- ☐ Other _____

3) Informant *(please check all that apply):*

- ☐ Healthcare facility staff
- ☐ Adult educator
- ☐ Adult learner/new reader
- ☐ Member of community
- ☐ Other _____

4) Facility for Tour

a) Name: _____

b) Location: _____

c) Prepared in advance:

- ☐ Permission letter from the facility
- ☐ Tour meeting time: _____
- ☐ Tour meeting place: _____

NOTE: If possible, try to arrange to meet near but not at the healthcare facility such as at a bus or subway stop or exit from the parking garage. This way you can walk to the healthcare facility with your informant. If you cannot "travel" to the hospital with your informant, meet just inside the main entrance to the healthcare facility and then step back outside together.

Before You Begin the Tour

You, the note taker, should take a moment before you begin the tour to explain that you will be asking the informant to explore certain public areas of the healthcare facility, and that you would like him/her to talk aloud about what tools (such as people, signs, maps) he/she is using to make decisions about where to go next.

Tell your informant that at certain points during the tour you will ask him/her specific questions but that there are no "right or wrong" answers to these questions.

Let your informant know that you will ask him/her to rate his/her experiences several times throughout the tour. Explain that you will ask him/her to select a number that best reflects how your informant feels. Use the chart below to discuss the rating tool.

Informant Rating Guidelines					
1	**2**	**3**	**4**	**5**	**6**
Very hard to navigate • Don't know where to begin • Feel like giving up • Unable to find destination		**Somewhat hard to navigate** • Feel confused and may need to ask for help • May need to retrace some steps		**Easy to navigate** • No problems • Find destination with ease	

Part A: Main Entry

This part of the *Walking Interview* focuses on finding the main entrance to the healthcare facility. Once you have reached the main entrance, take time to ask your informant the key question below. You may want to use some of the suggested prompts to encourage conversation.

- Next, ask your informant if he/she has any additional observations or concerns.
- Finally, ask your informant to rate his/her overall experience in finding the main entrance to this facility.

Key Question 1: *Tell me about your experience finding the main entrance.*

Additional Prompts:

- *How did you find the main entrance? What were your cues?*
- *What do you think about the available signs?*
- *Think about others you know who have not been to this facility. What will make it easy or hard for them to find their way here?*

_____

_____

_____

_____

_____

_____

Rating*:* Overall, how hard or easy was it for you to find the main entrance to the facility?

Very Hard **1** **2** **3** **4** **5** **6** **Very Easy**

Part B: Lobby→Security

Now prepare to enter the main lobby of the healthcare facility. At the entrance, you may immediately see a security guard. If you **do not see** or **are not stopped** by a security guard, please turn to the next page of the *Walking Interview.*

In many institutions, a security guard will stop and question you before you are allowed to enter the facility. Security has become a visible part of everyday life.

Please be aware of the entry process and be prepared to discuss the process with your informant. Tell your informant that people are often screened when they enter a building. Once you get past security, walk to a comfortable place to talk, ideally a place with chairs. Ask your informant the key question below.

Key Question 1: *How do you feel about the security process here?*

Additional Prompts:

- *How did the security guard treat you? What made you feel this way?*
- *Think about other people you know. Do you think they would feel comfortable entering the building if a security guard at the front door stopped them?*

Rating: Overall, how hard or easy was your experience with the security guard(s)? (If applicable)

Very Hard	**1**	**2**	**3**	**4**	**5**	**6**	**Very Easy**

Part B: Lobby→Overall Environment

Explain that this next part of the *Walking Interview* focuses on the lobby. Tell your informant that you will stay where you are, and that he/she should briefly explore the different areas of the main lobby. Your informant should then return to you and have a conversation with you about feelings and observations. Ask your informant to focus on several aspects of the lobby, such as the overall feel of the lobby, the use of print, the visuals, the sense of welcome, and the availability of help. Once your informant has finished exploring the lobby, ask him/her to answer the key question below.

Key Question 2: *How would you describe the use of the printed word in the lobby?*

Additional Prompts:

- *How is the printed word used?*
- *Are the words you see part of everyday talk?*
- *Are there any signs or words that make you feel intimidated or less comfortable?*

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, how much use of the printed word is there in the lobby?

A Lot of Print **1** **2** **3** **4** **5** **6** **Very Little Print**

Part B: Lobby→Overall Environment *(continued)*

Sometimes visuals such as photographs, artwork, and local postings offer a sense of connection to the community. Visuals may also capture the diversity and culture of the neighborhood. A reflection of familiar places and faces may make people feel more at ease, comfortable, or welcomed. Ask your informant to answer the question below.

Key Question 3: *How would you describe the use of pictures or other visuals in the lobby?*

Additional Prompts:

- *Do the visuals in the lobby make you feel welcomed and/or comfortable?*
- *Do the visuals reflect the neighborhood, cultural groups, or language groups of the people you see in this healthcare facility?*
- *Are there any visuals that make you feel especially welcomed? If so, what in particular?*

_____

_____

_____

_____

_____

_____

Rating: Overall, how welcoming are the pictures and other visuals in the lobby?

Not At All Welcoming 1 2 3 4 5 6 Very Welcoming

Part B: Lobby→Finding Help with Directions

Now ask your informant to think about needing help finding another part of the healthcare facility. Ask him/her to look around for sources of help such as people, maps, and signs.

Key Question 4: *Who is available to help you?*

Additional Prompts:

- *How do you identify people who can help you?*
- *Are you comfortable asking for help from the people you identify? Why? Why not?*

Rating: Overall, how helpful are the available staff and volunteers in the lobby? (If applicable)

Not At All Helpful 1 2 3 4 5 6 Very Helpful

Part B: Lobby→Finding Help with Directions *(continued)*

Key Question 5: *What maps or signs are available to help you?*

Additional Prompts:

- *Are the maps and signs clear/easy to read? Why? Why not?*
- *Would you use them? Why? Why not?*

Rating: Overall, how helpful are the maps and signs in the main lobby? (If applicable)

Not At All Helpful 1 2 3 4 5 6 Very Helpful

Part C: Navigation Activity
Moving from the Main Lobby to Location X

Next, determine a location in the facility (i.e., 'Location X') that does not include patient rooms or other private areas. Your informant should choose from the following:

- **Medical records:** where a person would go to obtain medical records.
- **Testing area such as an X-Ray or MRI office**: where a person would go to have a specific test or scan.
- **Specialty clinic**: such as the asthma center or the arthritis center.
- **Pharmacy**: where a person would go to fill a prescription (R_x).

Explain to your informant that he/she is to find his/her way from the main lobby to Location X and that you will ask him/her to talk aloud about making his/her way.

- Ask your informant to think aloud as much as possible.
- Observe and ask questions about your informant's actions:
  - *You did/did not take a map. Why?*
  - *You did/did not ask for directions at the help desk. Why?*
  - *What helped you make the decision to go in this direction first?*

Begin the walk to Location X. Your informant should take the lead on deciding which direction to go, and only then should you ask why the particular decision was made. Do not say anything if your informant gets lost, goes in the wrong direction, or takes a long time to find Location X. **However,** if this becomes stressful, work with your informant to find the way. Use the space below to record your informant's comments.

Tour Notes:

_____

_____

_____

_____

Part C: Navigation Activity →Final Reflections

Once you have reached Location X, find a comfortable place to talk. If there is no place for you to sit, walk back to the lobby or cafeteria (whichever is closer). Find your way there together. Then, ask your informant to answer the questions below about his/her overall experience of moving from the main lobby to Location X.

Key Questions:

How did you feel as you moved toward Location X?

_____

_____

What was helpful?

_____

_____

What was confusing?

_____

_____

How did you know when you reached your destination (Location X)?

_____

_____

Do you have any suggestions for those in charge?

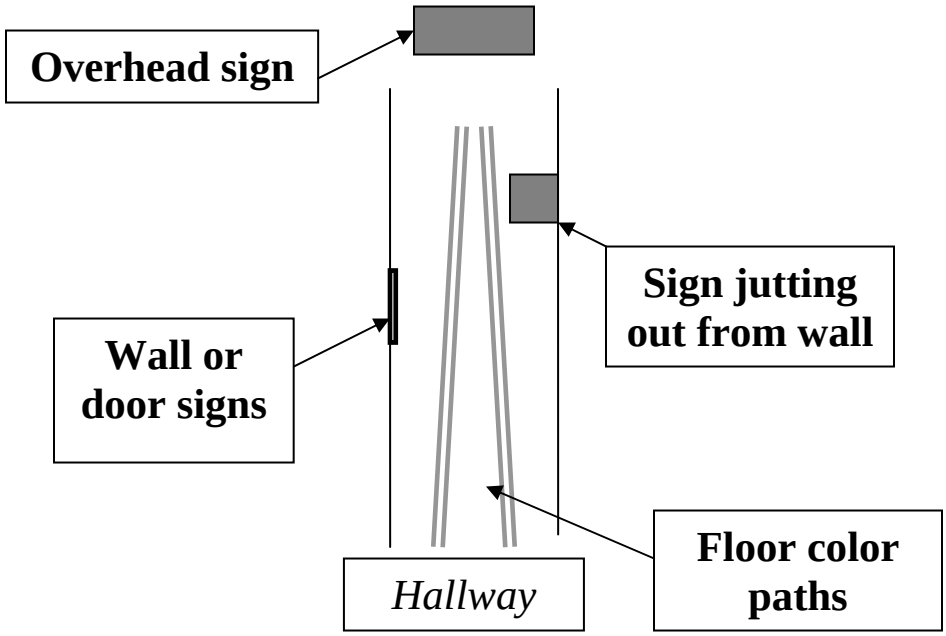
_____

_____

Part C: Navigation Activity →Final Reflections *(continued)*

Use of Signs

The diagram below shows a hallway and the types of signs most commonly encountered. Below, check the types of signs you found as you navigated the health facility and circle which kind was most common:



Please check all of the kinds of signs that you saw on your tour:

- ☐ Overhead signs
- ☐ Wall signs
- ☐ Sign jutting out from wall
- ☐ Floor color paths

Comments on signs:

Print Communication: Materials Assessment Workshop & Tools

Clear and simple materials are the foundation for easy entry into and navigation of healthcare facilities. Patients are often inundated with print materials. These materials include:

- Community relations materials (such as mailings and promotional materials)
- Patient orientation materials (such as welcome materials and patients' rights & responsibilities)
- Forms patients fill out (such as medical history forms)
- Patient education materials (such as disease and medicine descriptions)
- Legal materials (such as informed consent forms)
- Discharge preparation information (such as when to call your doctor)
- Follow-up notifications (such as test results and billing information)

This section includes the following information:

- Materials Assessment Workshop
  Purpose: Teach participants how to assess the reading grade level, layout, and design of printed materials in order to improve their readability.
  Facilitator: Person at your facility who oversees materials development.
  Participants: Anyone at your facility who develops or assesses materials.
- Tools for Conducting Readability Assessments for Print Materials

Once you have completed the *Readability Assessment Form for Print Materials*, please complete all of **Part 2** of the *Health Literacy Environment Review,* located on **pages 13-16.**

Materials Assessment Workshop Sample Agenda

Workshop Length: 3 hours (180 minutes) including a 10-minute break.

Learning Objectives: *Participants will be able to…*

1. Assess the reading grade level of print materials (using the SMOG)
2. Assess the layout and design of print materials (using the SAM & PMOSE/IKIRSCH)
3. Identify design issues to improve the readability (reading level, layout, design, use of visuals) of print materials

Materials Needed for Workshop:

Provided by facilitator

- ☐ Easel with flip chart or overhead projector
- ☐ Markers
- ☐ Sample 'plain language' materials
- ☐ (plain•word)™
- ☐ Directions for the SMOG
- ☐ Directions for the SAM
- ☐ Directions for the PMOSE/IKIRSCH

Brought by participants

- ☐ Samples of materials from their facilities (letter, brochure, instructions)

Steps

***1. Introduction (~20 minutes)*:** Have each of the workshop participants introduce themselves to the group and identify their experience with and responsibility for materials development.

2. Icebreaker (~15 minutes): Ask participants to form pairs. Pass out 2 (plain•word)™ cards to each pair. Read the directions aloud and then encourage the pairs to play for about 10 minutes. Ask participants to comment on the game.

3. Plain Language (~30 minutes): Introduce the topic of plain language to the group. Review the definition and make references to the icebreaker game, (plain•word)™. Discuss the use of plain language terms. Use an overhead or slide to illustrate technical terms found in hospital/health center materials and ask participants to offer substitute terms.

4. Readability (~40 minutes): Introduce the topic of readability. Discuss the types of readability formulas. Highlight that results cannot be compared across formulas, and note the importance of using one formula across the facility. Present the SMOG readability formula in detail. Ask the group to assemble in groups of three to assess the materials they brought to the workshop. Circulate among groups to answer questions. Ask each group to report back to the large group.

BREAK (~10 minutes)

5. Beyond Readability (~45 minutes): Discuss the importance of layout and design elements to ease readability. Present the SAM. Have participants divide into groups of three and perform the SAM on one of the materials they brought to the workshop. Next, review the elements of the PMOSE/IKIRSCH and ask participants to assess any tables, charts, or graphs within these materials.

6. Summary (~20 minutes): Review implications for developing new materials. For example, highlight the need to avoid jargon, to use short sentences and everyday words, and to highlight key facts.

Materials Assessment Workshop

Step One: Introduction
While many of the participants may know one another, they may not be familiar with each others' work. Ask people to introduce themselves and to describe their responsibilities for developing, choosing, or assessing materials used in the facility.

In addition, you may wish to provide a 'portrait' of U.S. adults, and briefly present findings from the 1992 National Adult Literacy Survey (NALS) and the 2003 National Assessment of Adult Literacy (NAAL). This information is available in **Section V: Background and Resources.**

Step Two: Icebreaker
This game sets a great tone for the workshop. Have participants work in pairs. Each person holds a "plainword" card, reads a hard word, such as *utilize,* and asks the others to suggest a common word substitute such as *use*. This game is the exact opposite of games developed to 'improve vocabulary' for those taking national tests for college or graduate school. (plain•word)™ was developed by the Canadian Public Health Association's (CPHA) National Literacy and Health Program. (plain•word)™ is easy to play. For each hard word card you have to guess a plain word. This game is designed to help you simplify the language you use by teaching the principles of plain language.

This exercise will give the participants a hands-on understanding of the challenges encountered when writing and speaking in "plain language." A more detailed description of (plain•word)™ is included at the end of this section.

Step Three: Plain Language
Health professionals must use the terms of their profession, and at the same time maintain an ability to translate technical terms into everyday words. The use of plain language helps us communicate with people who have not been trained in the same discipline and do not have the same background information.

Plain Words and Straightforward Sentences: The term "plain language" is jargon and many people are not familiar with it. You may want to begin your discussion of plain language by defining this term. *Plain language* is defined as a clear, simple, conversational style, and one that presents information in a logical order.

Next you might want to circle back to the icebreaker game, (plain•word)™. You can offer an illustration of technical health terms and substitutes by drawing from the examples in *Teaching Patients with Low Literacy Skills*[5], by Doak, Doak, and Root. Participants can then see terms side by side, such as *utilize* and *use*. You may also want to use one or two examples of comparisons between complex and simple sentences. Once the participants have a reference point, it may be easier to discuss the definition of plain language and tips for writing in plain language.

Organization: Plain language also focuses on careful attention to the organization and presentation of information. For example, the use of headings and summary sections helps highlight important information. Short sentences are preferred over long and complex sentences because readers can 'get lost.' Thus, plain language writers are encouraged to avoid clauses. In addition, plain language writers are encouraged to focus on one fact or idea in a sentence, and to use paragraphs to illustrate or develop one idea or main point.

Revision: People can have a difficult time when they try to make text clear and simple. This type of exercise 'goes against the grain', because many have learned from their experience in K-12 schooling that "good" writing incorporates a broad vocabulary and varied sentence formats. Plain language revisions take skill and time. Practice is very important. Therefore, the workshop activity should include an opportunity for participants to revise a piece of material.

Examples: Below are two examples from *Writing and Designing Print Materials for Beneficiaries: A Guide for State Medicaid Agencies*, by Jeanne McGee. One is the original and the second is a more appropriate plain language version.

> ***GRADE 12:***
> It makes good sense that premature births and newborn illnesses are decreased by early pregnancy care. The doctor is actively involved in testing the pregnant woman for pregnancy-induced diabetes and a host of other problems that would not be detected by the patient alone. We know that these problems cause premature births and illness in newborns. It certainly makes sense that early detection and treatment of these problems by the doctor results in healthier babies.

[5] Doak, L., Doak, C., & Root, J. (1996). *Teaching patients with low literacy skills* (2nd ed.). Philadelphia, PA: J.B. Lippincott Company. This is no longer in print but it is available on our Web site free of charge at www.hsph.harvard.edu/healthliteracy.

GRADE 4:
If you are pregnant or think you might be, go to the doctor as soon as you can. If you start your care early, things will go better for you and your baby. Your own doctor or a childbirth doctor from our list will give you a first exam. Tests every month or so will let you know if all is going well. If there is a problem, you'll know it right away. Then we can do what is needed. Early care is the best way to have a healthy child. Your baby counts on you.

Step Four: Readability
Readability is the first step in materials assessment, but should not be the only one. Readability level is associated with a grade level based on the development of texts for a particular grade. Text writers should consider vocabulary as well as the structure and format of sentences and passages. Simple, short sentences are associated with lower grades. Complex sentences are associated with higher grades. Because the pronunciation of multi-syllabic words is difficult in the English language, short words are considered to be easier to read than are longer words.

Note that there are several types of readability formulas in use. Some of the more commonly used readability formulas are the FRY, SMOG, and Flesch-Kincaid (computer version)

For a detailed discussion of readings as well as these readability tools, please see **pages 127-142.**

Following this discussion, present the SMOG readability formula in detail. We promote the SMOG because it predicts comprehension. Unlike some other formulas, the SMOG does not rely on a chart or graph and so it is more portable for fieldwork.

SMOG Assessment Activity: Provide each participant with the same materials. Then guide the group through the process of choosing 30 sentences: 10 at the start, 10 at the middle, and 10 at the end of each material. Encourage participants to use a highlighter to note periods. Next, work on the first ten sentences together, and use a highlighter to identify every word that has three or more syllables. Ask each participant to complete the assessment and offer a grade level. Ask participants to report on findings. Expect some variation, and use this opportunity to answer questions about the process and make corrections.

Ask participants to divide into groups of three and work together on one material brought to the workshop. Visit each group to answer questions. What seems like a simple, straightforward formula can spark many questions. For example:

Q: *What if a polysyllabic word is repeated several times? Do you count it each time or only the first time it is mentioned?*
A: According to the SMOG rules, you should count the word every single time it is mentioned.

Q: *What if a date or number is mentioned like 1999 or 12?*
A: In the first instance, 1999 would be counted as one polysyllabic word since it reads as a five syllable word, "nineteen-ninety-nine". In the second instance, 12 would not be counted as a polysyllabic word since it reads as a one-syllable word, "twelve".

Q: *What if an acronym is mentioned, such as "TANF"?*
A: An acronym is counted as each individual word that it represents. In this example, TANF represents "Temporary Assistance for Needy Families" and it has 3 polysyllabic words (temporary, assistance, and families). You would add 3 to your polysyllabic word count.

Ask the participants to report back to the full group. Highlight the importance of short sentences and everyday words.

Step Five: Beyond Readability
The reading grade level (RGL) of print material is just one component of assessing materials. RGL does not offer insight into organization, design, or layout. This portion of the workshop focuses on additional tools that go beyond attention to word and sentence length. Step Five introduces participants to the Suitability Assessment of Materials (SAM) and the PMOSE/IKIRSCH.

The SAM covers organization, writing style, appearance, and appeal. The workshop time is limited, and so participants will only have time to focus on an introduction to the SAM. However, a complete overview of the SAM is provided at the end of this section and can be replicated as a handout. Once you provide an overview, ask groups of three to review the sample material and focus on one of the SAM components.

The PMOSE/IKIRSCH is a tool used for assessing documents rather than prose. Prose materials are comprised of full sentences in paragraph form. Documents consist of lists, charts, and graphs. The full PMOSE/IKIRSCH tool is provided at the end of this section on **pages 139-140** and can be replicated as a handout. Review the key components of PMOSE/IKIRSCH. Note that the focus of this tool is on the format of lists or charts, and that the score is based on measures of complexity. Please note that the PMOSE/IKIRSCH does not include an assessment of vocabulary. Ask the groups of three to find a list, chart, or graph in the sample materials and to apply the PMOSE/IKIRSCH.

Please let the participants know that these tools will provide insight into factors that ease reading or make reading more difficult. Although the SAM has some very subjective parts, the questions themselves are thought-provoking and help people look at print materials in a new way.

Step Six: Summary

During the last 20 minutes of the workshop, answer any remaining questions. Review the handouts, references, Web links, and other resources. Encourage participants to teach others in their unit or area of specialty, and to work with others to assess materials. Suggest that participants use the *Readability Assessment Form* for print materials, provided on **page 128**, to evaluate all print materials distributed at their healthcare facility.

Readability Assessment Overview

People who develop and assess health materials must pay attention to the following:

1. Materials written in **prose format** (text in full sentences in paragraphs)
2. Materials written in **document format** (information that is presented in lists, charts, tables, and graphics)

Both types of materials can have varying levels of difficulty and complexity.

Prose format: A number of readability formulas assess the difficulty of print materials in prose format. The scores are based on vocabulary and length of sentences. Everyday words are more easily recognized than professional jargon and scientific terms. Short sentences with a clear focus are more easily followed than are long sentences containing several ideas and/or clauses. The SMOG is useful for assessing the reading grade level of prose. However, this formula does not assess jargon, organization of text, or design features. The SAM (Suitability Assessment of Materials) considers an array of issues such as organization of text and design.

Document format: One tool, the PMOSE/IKIRSCH, has been developed to assess the structure of materials. This tool enables a reviewer to calculate the complexity of documents by examining the structure of the text, <u>but not vocabulary.</u>

Consider assessing some or all of the following print materials:

<u>Prose (Use the SMOG and SAM):</u>

- Community relations (such as mailings and promotional materials)
- Patient orientation (such as welcome pamphlets, information booklets, and patients' rights & responsibilities listings)
- Follow up notifications (such as test results and billing information)
- Patient education materials (such as disease and medicine descriptions)
- Legal materials (such as informed consent forms)

<u>Documents (Use the PMOSE/IKIRSCH):</u>

- Forms patients fill out (such as medical history forms)

Note: For mixed prose/documents such as discharge preparation information or medication instructions, use the SMOG, SAM, and PMOSE/IKIRSCH, as appropriate.

Readability Assessment Form

Note: *Please duplicate this form as needed.*

Date: _____Name: _____

1. Name of material you are assessing:

_____

(such as diabetes medication brochure, HIV testing information sheet, etc.)

2. Type of material you are assessing:
   - ☐ Community relations (such as mailings and promotional materials)
   - ☐ Patient orientation (such as welcome brochures, information booklets, and patients' rights & responsibilities listings)
   - ☐ Follow-up notifications (such as test results and billing information)
   - ☐ Patient education materials (such as disease and medicine descriptions)
   - ☐ Legal materials (such as informed consent forms)
   - ☐ Forms patients fill out (such as medical history forms)
   - ☐ Discharge preparation information

3. Readability assessment tool(s) you used:
   - ☐ SMOG
   - ☐ SAM
   - ☐ PMOSE/IKIRSCH

4. Score(s) from readability tools:
   - ☐ SMOG_____
   - ☐ SAM_____
   - ☐ PMOSE/IKIRSCH_____

Tool	Desired Score
SMOG	Reading grade level at or below 8th grade
SAM	Design and vocabulary meeting standard of adequate or superior.
PMOSE/IKIRSCH	Level 1 or 2

Tools for Skills Development for Assessing Materials

♦ ♦ ♦

(plain•word)™

♦

SMOG: A readability assessment tool

♦

SAM: A suitability of materials assessment tool

♦

PMOSE/IKIRSCH: A document literacy assessment tool

(plain•word)™

Medium(s): Available by:

- Web site: http://www.cpha.ca/english/hrc/hrcpubs/literacy.htm
- Print
- CD-ROM

Intended Audience

If communication is an important part of your work, (plain•word)™ can teach you the principles of plain language that help you get your message across the first time.

Background

(plain•word)™ was developed by the Canadian Public Health Association's (CPHA) National Literacy and Health Program (http://www.nlhp.cpha.ca/). The National Literacy and Health Program (NLHP) promotes awareness among health professionals of the links between literacy and health. The NLHP provides resources to help health professionals serve clients with low literacy skills more effectively. The program focuses on health information in plain language, and on clear verbal communication between health professionals and the clients they serve. CPHA is committed to maintaining and improving personal and community health according to the public health principles of prevention, promotion, protection, and effective public policy. The National Literacy and Health Program has been in existence for ten years and works with twenty-seven national health association partners to raise awareness about literacy and health.

Description: (plain•word)™ is easy to play. All you have to do is guess a (plain•word)™ for each hard word on a Word Card.

For example: If the hard word is *manufacture*, the (plain•word)™ is *make*. If the hard word is *utilize*, the (plain•word)™ is *use*.

Sometimes the (plain•word)™ may be more than one word. *For example:* If the hard word is *banned*, the (plain•word)™ is *not allowed*.

If you guess an incorrect (plain•word)™, you must choose an Editor's Note Card. These cards teach principles of plain language and are designed to give or take away points in the actual game.

SMOG

Pros

- The SMOG is useful for doing quick assessments of materials. It does not rely on charts or graphs. It is very useful for doing "fieldwork" assessments.
- Predicts 100% comprehension.

Con

- The SMOG does not discriminate well at levels of literacy below a 6th grade reading level.

How To—IF YOUR DOCUMENT HAS 30 SENTENCES OR MORE.

1. **Highlight or circle** period (.), exclamation point (!), question mark (?) at the end of 10 consecutive sentences found at the start of the material, 10 consecutive sentences in the middle, and 10 consecutive sentences at the end of the material. In total, you should now have 3 groups of 10 sentences each marked in your material (for a total of 30 sentences). *If the health material has just 30 sentences in total, then you can count this one grouping of 30 consecutive sentences.*

   TIPS:
   - A sentence is defined as a string of words punctuated with a period (.), an exclamation point (!) or a question mark (?).
   - Since difficulty may differ by content area, you may choose to select 3 groups of 10 sentences that cover different content topics.

2. Words with three or more syllables are called "polysyllabic words". In your sample of 30 sentences, **identify which words are polysyllabic**. Highlight or circle all polysyllabic words using a color different from the one you chose for your punctuation.

   TIPS:
   - Hyphenated words are considered as one word.
   - Numbers that are written out should be considered a full word, as are numbers offered in numeric form. For example, seventy-five has 4 syllables (se-ven-ty-five).
   - Proper nouns, if polysyllabic, should be counted too.
   - Abbreviations should be read as though they were unabbreviated to determine if they are polysyllabic.

3. **Count each of the words** that you highlighted (this is your total number of polysyllabic words for your 30 sentences).

4. Next, **estimate the square root** of the total number of polysyllabic words. Find the nearest perfect square and take its square root. For example, if your total number of polysyllabic words is 38, the nearest perfect square is 36. The square root of 36 is 6 ($\sqrt{36}=6$).

5. Finally, **add 3** to the square root. Consider the example in #4. The nearest perfect square was 36. The square root is 6. Add 3 to get 9 (3+6=9). This final number is the SMOG reading grade level (RGL). A 9th grade RGL is generally considered to be above the average reading skills of U.S. high school graduates.

How to—IF YOUR DOCUMENT HAS LESS THAN 30 SENTENCES.

1. Highlight or circle the periods (or other punctuation) at the end of each sentence.

2. Count the number of the sentences in your document.

3. Identify which words are polysyllabic.

4. Count each of the polysyllabic words that you highlighted.

5. Find the average number of polysyllabic words per sentence by dividing the total number of polysyllabic words by the number of sentences in your document.

Example:	Total number of polysyllabic words in your text	= 67.0
	Total number of sentences in your text	= 25.0
	Average number of polysyllabic words per sentence (67.0÷25.0)	*= 2.68*

6. Determine how many sentences short of 30 you have.

Example:	Total number of sentences in your text	= 25
	Number of sentences short of 30 (30-25)	*= 5*

7. Multiply the average number of polysyllabic words per sentence from Step 5 by the number of sentences short of 30 from Step 6.

Example:	Average number of polysyllabic words per sentence	= 2.68
	Number of sentences short of 30 (30-25)	= 5.00
	Multiplication (2.68x5.00)	*= 13.4*

8. Add your figure from Step 7 to your total number of polysyllabic words.

Example:	Step 7 figure	= 13.4
	Total number of polysyllabic words in your text	= 67.0
	Addition (13.4+67.0)	*= 80.4*

9. Next, estimate the square root of the total number of polysyllabic words counted. This is done by finding the nearest perfect square, and taking its square root.

Example:	Total number of polysyllabic words from Step 8	= 80.4
	The nearest perfect square	= 81.0
	The square root of 81 (√81)	*= 9*

10. Finally, add 3 to the square root.

Example:	The square root from Step 9	= 9
	Add 3	= 3
	Addition (9+3)	*= 12*

This number gives the SMOG grade, or the reading grade level assigned to text. In our example the **SMOG Reading Grade Level for the text would be 12.** This number helps you understand the "demand" of the text.

References

McLaughlin, G.H. (1969). SMOG grading: A new readability formula. *Journal of Reading*, *12*, 639-646.

Rudd, R.E. Assessing materials. Harvard School of Public Health: Health Literacy Web site. 2002. Available at http://www.hsph.harvard.edu/healthliteracy/how_to/assess_mat.html.

U.S. Department of Health and Human Services. (1999) *Writing and designing print materials for beneficiaries: A guide for state Medicaid agencies* (HCFA Publication No. 10145). Baltimore, MD: Author: Jeanne McGee.

SAM

Pros

- Assesses many important aspects of materials such as organization, layout, and design, as well as readability.
- Although the SAM was developed for use with print materials, it has also been used to assess video- and audio-taped instructions to patients.

Cons

- The SAM is a subjective instrument and it is not always possible to achieve a consistent score among reviewers. However, the review process enables a team to fully examine and discuss the demands of health materials.
- You need to have the SAM score sheet as well as the SAM instrument guide with you when you are assessing your materials. Therefore, the SAM is more suited for office-based work than for fieldwork.

How To

1. Read through the SAM scoring criteria. The **SAM scoring sheet** is provided on the **following page**. For more detailed information about the scoring criteria, please refer to Doak, L., Doak, C., & Root, J. (1996). *Teaching patients with low literacy skills* (2nd ed.). Philadelphia, PA: J.B. Lippincott Company. This is available on our Web site at www.hsph.harvard.edu/healthliteracy.
2. Read the material (or view the video) you wish to evaluate, and write a brief statement as to its purpose(s) and key points.
3. For short materials, evaluate the entire piece. For long materials, select samples to evaluate.
4. Evaluate and score each of the 22 SAM scoring factors.
5. Calculate total suitability score.
6. Decide on the impact of the deficiencies and what action to take.

Note: You may also choose to create your own assessment checklist using some of the key components that are listed in the SAM. We have created a checklist that we use. It is presented below:

— Is the font size larger than 12 points? Yes No
— Are the margins at least 1 inch on all sides? Yes No

By creating a list that has yes/no answers, some of the subjectivity is eliminated and the checklist can be used by many reviewers.

SAM Scoring Sheet

From: Doak, Doak, and Root (1996). *Teaching patients with low literacy skills* (2nd ed).

2 points for superior rating
1 point for adequate rating
0 points for not suitable rating
N/A if the factor does not apply to this material

FACTOR TO BE RATED	SCORE	COMMENTS
1. CONTENT		
(a) Purpose is evident	_____	_____
(b) Content about behaviors	_____	_____
(c) Scope is limited	_____	_____
(d) Summary or review included	_____	_____
2. LITERACY DEMAND		
(a) Reading grade level	_____	
(b) Writing style, active voice	_____	
(c) Vocabulary uses common words	_____	
(d) Context is given first	_____	
(e) Learning aids via "road signs"	_____	
3. GRAPHICS		
(a) Cover graphic shows purpose	_____	
(b) Type of graphics	_____	
(c) Relevance of illustrations	_____	
(d) List, tables, etc. explained	_____	
(e) Captions used for graphics	_____	
4. LAYOUT AND TYPOGRAPHY		
(a) Layout factors	_____	
(b) Typography	_____	
(c) Subheads ("chunking") used	_____	
5. LEARNING STIMULATION, MOTIVATION		
(a) Interaction used	_____	
(b) Behaviors are modeled and specific	_____	
(c) Motivation—self-efficacy	_____	
6. CULTURAL APPROPRIATENESS		
(a) Match in logic, language, experience	_____	
(b) Cultural image and examples	_____	

Total SAM score: _____Total possible score: _____ Percent score: _____%

Interpretation of SAM percentage ratings:

70-100 percent	**superior material**
40-69 percent	**adequate material**
0-39 percent	**not suitable material**

References

Doak, L., Doak, C., & Root, J. (1996). *Teaching patients with low literacy skills* (2nd ed.). Philadelphia, PA: J.B. Lippincott Company. This is no longer in print but it is available on our Web site free of charge at www.hsph.harvard.edu/healthliteracy.

Rudd, R.E. Assessing materials. Harvard School of Public Health: Health Literacy Studies Web site. 2002. Available at http://www.hsph.harvard.edu/healthliteracy/how_to/assess_mat.html.

PMOSE/IKIRSCH

Pros

- The PMOSE/IKIRSCH is the first and only tool to assess the difficulty of documents.

Cons

- The PMOSE/IKIRSCH does not take into consideration readability level. Vocabulary is not addressed, nor is complexity of phrases.
- The tool can be somewhat cumbersome to implement.

Background

Adults encounter documents (forms, tables, graphs, charts, and lists) on a regular basis. Until recently, no tool existed to measure the readability of documents. Researchers Mosenthal and Kirsch developed a measure for assessing document complexity called the PMOSE/ IKIRSCH document readability formula (*Journal of Adolescent & Adult Literacy, 41*(8), 1998). The formula examines:

- The structure
- The number of labels
- The number of items

These factors are used to calculate the complexity of a chart or table. Scores range from Level 1 to Level 5 *Proficiency*. The *Proficiency Level* can be translated into a grade-level equivalent:

Level 1 Proficiency:	range including Grade 4; equivalent to 8 years of schooling
Level 2 Proficiency:	range including Grade 8; equivalent to high school degree
Level 3 Proficiency:	range including Grade 12; equivalent to some education after high school
Level 4 Proficiency:	range including 15 years of schooling to college degree equivalent
Level 5 Proficiency:	range including 16 years of schooling to more advanced post college degree

Mosenthal and Kirsch consider the organization of information. They claim comprehension of information presented in simple lists, for example, depends on how the lists are arranged. Some of the more complicated list structures are *combined*, *intersected*, and *nested*.

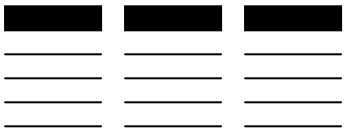
PMOSE/IKIRSCH Instructions

From Mosenthal & Kirsch (1998). A new measure for assessing document complexity: The PMOSE/IKIRSCH document readability formula. *Journal of Adolescent and Adult Literacy*, *41*, 638-657

Document structure

Score 1 if *simple-list* structure.

Score 2 if *combined-list* structure
(also includes pie charts and time lines).



Score 3 if *intersected-list* structure
(also includes bar charts, line graphs, and maps).

Score 4 if *nested-list* structure
(also includes bar charts and line graphs with nested labels).

Document structure score: _____

Document density

Labels
Score 1 if 15 or fewer labels.
Score 2 if 16 to 25 labels.
Score 3 if 26 to 35 labels.
Score 4 if 36 to 46 labels.
Score 5 if more than 46 labels.

Number of labels score: _____

Instructions continue onto next page→

Items
Score 1 if 75 or fewer items.
Score 2 if 76 to 125 items.
Score 3 if 126 to 175 items.
Score 4 if 176 to 225 items.
Score 5 if more than 225 items.

Number of items score: _____

Add 1 if document makes reference to information in a related document or as a dependency.

Dependency score: _____

Total score: _____

Document complexity level
(Circle total score below to determine a document's complexity level)

Very low complexity	Low complexity	Moderate complexity	High complexity	Very high complexity
3 4 5 **Level 1 proficiency** **Range including Grade 4 equivalent to less than 8 years of schooling.**	**6 7 8** **Level 2 proficiency** **Range including Grade 8 equivalent to high school diploma.**	**9 10 11** **Level 3 proficiency** **Range including Grade 12 equivalent to some education after high school.**	**12 13 14** **Level 4 proficiency** **Range including 15 years of schooling to college degree equivalent.**	**15 16 17** **Level 5 proficiency** **Range including 16 years of schooling to more advanced post-college degree.**

PMOSE/IKIRSCH Examples

Example 1: NALS Table 1.4

AVERAGE YEARS OF SCHOOLING, BY AGE

Age	Average Years of Schooling*
16-18 years**	10.8
19-24 years**	12.5
25-39 years	12.9
40-54 years	13.1
55-64 years	11.8
65 years and older	10.7

*in this country.
**Many adults in these age groups are still in school.
Source: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Applying the PMOSE/IKIRSCH Document Readability Formula

1. Table presented above is a **Combined List** and receives a score of **2.**
2. There are **2 labels**, which corresponds to a score of **1**.
3. There are 12 items, plus 2 items in footnotes, for a total of **14 items** and a score of **1**.
4. The table contains **footnotes**, so the dependency score is **1**.
5. **If we add the previous scores, the total document complexity level for this Table is 5, or Level 1 Proficiency.**

Example 2: NALS Table 2.1

AMONG ADULTS WHO READ THE NEWSPAPER AT LEAST ONCE A WEEK, AVERAGE LITERACY PROFICIENCIES, BY NEWSPAPER READING PRACTICES

	Average Prose Proficiency		Average Document Proficiency		Average Quantitative Proficiency	
	Yes	No	Yes	No	Yes	No
News, editorials, financial	282	248	276	248	281	250
Home, fashion, reviews	284	267	277	264	282	271
Classified ads, listings	280	282	274	274	280	282
Comics, advice, horoscope	282	277	276	271	280	279
Sports	282	280	276	273	284	276

Source: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Applying the PMOSE/IKIRSCH Document Readability Formula:

1. This Table has a **Nested List Structure**, so it receives a score of **4**.
2. There are **9 labels**, which corresponds to a score of **1**.
3. There are **35 items**, which corresponds to a score of **1**.
4. The table **does not** contain footnotes, so the dependency score is **0.**
5. **If we add the previous scores, the total document complexity level for this Table is 6, or Level 2 Proficiency.**

References

Kirsch, I., Jungeblut, A., Jenkins, L., & Kolstad, A. (1993). *Adult literacy in America: The first look at the results of the National Adult Literacy Survey (NALS).* Washington, DC: U.S. Department of Education.

Mosenthal, P. B., & Kirsch, I.S. (1998). A new measure for assessing document complexity: The PMOSE/IKIRSCH document readability formula. *Journal of Adolescent and Adult Literacy*, *41*, 638-657.

Oral Exchange: Patient Satisfaction Survey

Communication between patients and staff at hospitals and health centers is a critical component of healthcare. Patients at healthcare facilities interact with staff at all levels including receptionists, service staff, and healthcare providers. Patients may seek help with directions, forms, information, and follow up action. Encounters between patients and staff may include:

- Phone inquiries
- Help desk questions
- Intake procedures
- Medical examination discussions
- Consent procedures
- Discharge preparation information

An in-house patient satisfaction study of oral exchange can offer insightful findings for discussions and analyses. Findings can be used to help shape the design of training and educational opportunities for staff members.

This section offers an example of a patient satisfaction survey interview. This type of survey should be administered as an interview so that people who may not read well can participate. The interview should take place after patients have completed their visit to the facility, or after a visit to a practitioner. The interview should take between 5 and 10 minutes. Once you have collected a sample of interviews, review the results and complete **Part 3** of the *Health Literacy Environment Review,* located on **pages 17-18.**

Patient Satisfaction Survey Interview Form

Greeting

1. *Were you greeted when you entered this area?* ☐ Yes ☐ No
2. *Did you feel welcomed?* ☐ Yes ☐ No

Forms

3. *Were you asked to fill out a form? (If no, skip to question #6).*
   ☐ Yes ☐ No
4. *If you were asked to fill out a form, did a staff member or volunteer offer to help you with it?* ☐ Yes ☐ No
5. *How helpful was the staff member or volunteer in assisting you?*

Tell me the number that most closely captures your experience with our staff.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N/A**
Not at all helpful				Somewhat helpful				Very helpful		

Please describe your experience:

_____

_____

_____

Talk

6. *If staff used medical or technical terms, did they explain them?* ☐ Yes ☐ No
7. *How helpful were the definitions and explanations of terms staff gave you?*

Tell me the number that most closely captures your experience with our staff.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N/A**
Not at all helpful				Somewhat helpful				Very helpful		

Please describe your experience:

_____

_____

_____

Please continue onto next page→

Questions

8. *Did you ask questions during your visit today?* ☐ Yes ☐ No
9. *Were your questions well-received?* ☐ Yes ☐ No
10. *How comfortable did you feel asking questions?*

Tell me the number that most closely captures your experience with our staff.

1 2 3 4 5 6 7 8 9 10 N/A

Not at all comfortable Somewhat comfortable Very comfortable

Please describe your experience:

_____

_____

_____

11. *Were you given the name of a person or place to call if you have any follow up questions?* ☐ Yes ☐ No

Overall Experience

12. *Were you treated with respect and dignity?* ☐ Yes ☐ No

Please describe your experience and tell us ideas for improving our clinic:

_____

_____

_____

_____

_____

_____

_____

_____

Technology: Current Technology Assessment

Many healthcare facilities are using televisions, telephones, computers, and kiosks to offer patients an orientation to the facility and services, explain procedures, augment data collection, retrieve information, and provide educational opportunities. This section of the guide provides you with a tool to assess **where** and **how** technology is **currently** being used in your facility.

For this technology assessment activity, we suggest that you spend some time walking around spaces in your facility that patients have access to, such as:

- Lobbies and other waiting areas
- Testing sites
- Hallways
- Resource rooms, libraries, learning centers
- Family and visitor lounges
- Pharmacies

Make note of the **locations** and **uses** of the following technologies available to patients:

- Televisions
- Telephones
- Computers
- Kiosks

Once you have filled out the *Current Technology Assessment Form,* please complete **Part 4** of the *Health Literacy Environment Review*, located on **pages 19-20.**

Current Technology Assessment Form

Please answer the following questions about current technology available in your hospital or health center …

Televisions

Consider when and where patients can have access to televisions in your facility.

1. *Does your facility have televisions in spaces available to patients and visitors?*

   ☐ Yes ☐ No (If No, skip to question #6)

2. *In which public spaces are televisions located for patients to use in your facility?*

_____ _____

_____ _____

_____ _____

_____ _____

3. *How are patients currently using televisions? Please check all that apply:*
   - ☐ News
   - ☐ Entertainment
   - ☐ Healthcare facility information
   - ☐ General patient education
   - ☐ Specific information preparing a patient for a test or procedure
   - ☐ Other_____

4. *Are the televisions connected to DVD players or VCRs?*

   ☐ Yes ☐ No (If No, skip to question #6)

5. *How are patients currently using DVD players and VCRs?*
   - ☐ Entertainment
   - ☐ Healthcare facility information
   - ☐ General patient education
   - ☐ Specific information preparing a patient for a test or procedure
   - ☐ Other_____

Please continue onto next page→

House Phones

Consider when and where patients can have access to house telephones in your facility.

6. *Does your facility have house telephones available for patients to use?*
   ☐ Yes ☐ No (If No, skip to question #9)

7. *In which public spaces are house telephones located in your facility for patients to use?*

_____ _____
_____ _____
_____ _____
_____ _____

8. *How are patients currently using house telephones*? Please check all that apply*:*

   ☐ Help desk (for example, to get directions)
   ☐ Translation services
   ☐ Data entry (for example, to get help filling out forms)
   ☐ Other_____

Computers

Consider when and where patients can have access to a computer (with or independent of their providers).

9. *Does your facility have computers in spaces available to patients and visitors?*

   ☐ Yes ☐ No (If No, skip to question #15)

10. *Where are these computers located?*

_____ _____
_____ _____
_____ _____
_____ _____

Please continue onto next page→

11. How are patients currently using computers? Please check all that apply:

- ☐ Health history information
- ☐ Screening
- ☐ Medical records
- ☐ General patient education
- ☐ Specific information preparing a patient for a test or procedure
- ☐ Internet
- ☐ Other_____

12. Do all computers have Internet capabilities? ☐ Yes ☐ No

13. Are any computers connected to the Internet? ☐ Yes ☐ No

14. Do any of the computers have headphones available? ☐ Yes ☐ No

Kiosks

Consider when and where patients can have access to kiosks (free-standing computer consoles).

15. Does your facility have kiosks in spaces available to patients and visitors?

☐ Yes ☐ No (If No, skip to question #19)

16. Where are these kiosks located?

_____ _____

_____ _____

17. What are kiosks currently used for? Please check all that apply:

- ☐ Health history information
- ☐ Screening
- ☐ Medical records
- ☐ General patient education
- ☐ Specific information preparing a patient for a test or procedure
- ☐ Internet
- ☐ Other_____

18. Do any of the kiosks have headphones available? ☐ Yes ☐ No

Please continue onto next page→

Reminder Systems

Consider what is in place in a variety of departments or testing areas.

19. *How are patients reminded about their upcoming appointments?*
    Please check all that apply:
    - ☐ Phone calls from an automated system
    - ☐ Phone calls from a person
    - ☐ E-mails
    - ☐ Postcards or letters
    - ☐ Other_____
    - ☐ We do not provide reminders.

20. *How are patients reminded about preparing for upcoming tests and procedures?*
    Please check all that apply:
    - ☐ Phone calls from an automated system
    - ☐ Phone calls from a person
    - ☐ E-mails
    - ☐ Postcards or letters
    - ☐ Other_____
    - ☐ We do not provide reminders.

21. *How are patients reminded about engaging in follow-up care?*
    Please check all that apply:
    - ☐ Phone calls from an automated system
    - ☐ Phone calls from a person
    - ☐ E-mails
    - ☐ Postcards or letters
    - ☐ Other_____
    - ☐ We do not provide reminders.

Vendors of Easy-to-Read Health Education Materials

Channing Bete Company
One Community Place
South Deerfield, MA 01373-0200
1-800-477-4776
www.channing-bete.com

Topics include: HIV/AIDS, STDs, sexual responsibility/abstinence, sexual health, pregnancy prevention, violence prevention. **Languages**: Some titles in Spanish. **Reading Level:** States all publications are at 8th grade level or below. Has some low-literacy titles written at 3rd-4th grade level. **Other:** Variety of print formats, some DVD and video, some teen-focused materials.

ETR Publishing
4 Carbonero Way
Scotts Valley, CA 95066
1-800-321-4407
www.etr.org

Topics include: Birth control, abstinence, HIV, safer sex, STDS, violence prevention, women's health, men's health. **Languages**: Some titles in Spanish, a few in Chinese. **Reading Level:** Not stated, but many are written in plain language. **Other:** Variety of print formats, some DVD and video, many teen-focused materials.

Journeyworks Publishing
P.O. Box 8466
Santa Cruz, CA 95061-8466
1-800-775-1998
www.journeyworks.com

Topics include: HIV/AIDS, STDs, male responsibility, abstinence, pregnancy prevention, violence prevention. **Languages**: Some titles in Spanish. **Reading Level:** States all publications are at 8th grade level or below and most are at 4th – 6th grade level. **Other:** Mostly 6-panel brochures, also booklets and posters. Many teen-focused materials.

Health Edco
P.O. Box 21207
Waco, TX 76702-1207
1-800-299-3366
www.healthedco.com

Topics include: women's health, men's health, HIV/AIDS, STDs, birth control, violence prevention. **Languages**: Some materials in Spanish. **Reading Level:** Some materials described as easy-to-read. **Other:** A lot of "non-brochure" materials, including charts, models, games, videos, and more.

Krames
780 Township Line Rd.
Yardley, PA 19067
1-800-333-3032
www.krames.com

Topics include: Women's health, HIV/AIDS, STDs, contraception, breast and cervical cancer prevention. **Languages**: Some titles in Spanish. **Reading Level:** States most are written at 6th-8th grade reading level.

American Social Health Association
P.O. Box 13827
Research Triangle Park, NC 27709
919-361-8400
www.ashastd.org

Topics include: STDs, HIV/AIDS, safer sex, women's health. **Languages**: Some titles in Spanish. **Reading Level:** Has an "easy-read series" of brochures in English and Spanish, stated as written at 5th and 6th grade level. **Other:** Has teen-focused materials.

California Family Health Council/EPA
CFHC, EPA Division
492 Division St.
Campbell, CA 95008-6932
1-800-428-5438
www.epahealth.org

Topics include: Birth control, EC, reproductive health, STDs, HIV/AIDS, domestic violence, women's health, male reproductive health, breast and cervical cancer.

Languages: Has some materials in a variety of languages, including Spanish, Chinese, Korean, Vietnamese, Cambodian and more. **Reading Level:** Described as easy-to-read, but most appear to be quite text-heavy. **Other:** Specializes in the development of culturally specific/competent materials.

Massachusetts Health Promotion Clearinghouse
(For MA providers only)
The Medical Foundation
93 Berkeley St.
Boston, MA 02116
1-800-952-6637
www.maclearinghouse.com

Topics include: HIV/AIDS, STDs, Women's Health, men's health, GLBT health. **Languages:** Has some materials in a variety of languages, including Spanish, Portuguese, Vietnamese, Chinese and more. **Other:** Mostly print formats, a few videos. Provides free health promotion materials for Massachusetts residents and Massachusetts health and social service providers.

Clear Communication

Listing of Online Resources

Articles and Manuals on Plain Language

Health Literacy: A Manual for Clinicians.
Developed by the AMA in 2003, this booklet provides general information on what health literacy is and why it is important; tips on how to estimate a patient's literacy level; and an overview on communicating effectively with patients through both written, visual and verbal communication. It also includes case studies and discussion questions.
http://www.ama-assn.org/ama1/pub/upload/mm/367/healthlitclinicians.pdf
Article also provided in toolkit

Teaching Patients with Low Literacy Skills
This book is now considered a classic text in health literacy. The authors, Ceci and Len Doak, are often introduced at health literacy conferences as 'the grandparents' of health literacy. Indeed, their contribution to the field and to our understanding of clear communication principles has been profound.
http://www.hsph.harvard.edu/healthliteracy/doak.html

The Health Literacy Environment of Hospitals and Health Centers: Partners for Action: Making Your Healthcare Facility Literacy-Friendly
The guide and the review tools found within it offer an approach for analyzing literacy-related barriers to healthcare access and navigation. This guide was designed to assist chief executive officers, presidents, program directors, administrators, and healthcare workers at hospitals or health centers to consider the health literacy environment of their healthcare facilities and to analyze ways to reduce demands, to better serve their patients and staff and ultimately to increase revenue.
http://www.ncsall.net/?id=1167
Article also provided in toolkit

The New England Literacy Resource Center
NELRC works to strengthen adult literacy services in New England through sharing and collaborative projects among adult literacy professional development providers, practitioners and policy-makers.
http://www.nelrc.org/

Clear and to the Point: Guidelines for Using Plain Language at NIH
This website developed by the Harvard School of Public Health is a quick summary of most of the main concepts of plain language writing, including examples of "translations" and SMOG.
http://www.hsph.harvard.edu/healthliteracy/how_to/clear.html

The Plain Language Initiative
This Web site was created to provide resources to help writers achieve the goal of plain language at NIH.
http://execsec.od.nih.gov/plainlang/index.html

SMOG Information and Calculators
http://www.harrymclaughlin.com/SMOG.htm

http://www.wordscount.info/hw/smog.jsp

Glossaries
HEAL wordlist
http://healthliteracy.worlded.org/heal/list/word_list_booklet.pdf

Alternative Lay Language for Medical Terms in Consent Forms copyrighted by the University of Kentucky.
http://healthcare.partners.org/phsirb/irbforms/dict2.pdf

Provides brochures to download containing glossaries on asthma, arthritis and lupus.
http://www.hsph.harvard.edu/healthliteracy/innovative.html#three

University of Michigan Medical School, IRB. Guidance: Simplification Guide to Medical Terms. Last updated 20 January 1999.
http://www.med.umich.edu/irbmed/guidance/guide.htm

Sexual health glossary provided by Planned Parenthood
http://www.plannedparenthood.org/sexual-health/glossary-4338.htm

Focus Group Resources
The Free Management Library's webpage on conducting focus groups
http://www.managementhelp.org/grp_skll/focusgrp/focusgrp.htm

A website with tips on conducting focus groups by the Market Navigation, Inc.
http://www.mnav.com/qualitative_research.htm

The Community Toolbox provides over 6,000 pages of practical skill-building information on over 250 different topics. Topic sections include step-by-step instruction, examples, check-lists, and related resources.
http://ctb.ku.edu/index.jsp

Resources from the Region I Title X Family Planning Training Center
http://www.famplan.org/plainlang.htm

http://www.famplan.org/spanish.htm