



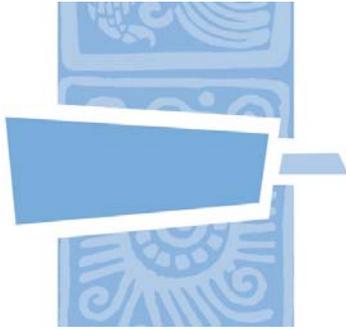
TOOLKIT for Making Written Material Clear
and Effective

SECTION 4: Special topics for writing and design

PART 8

Will your written material be on
a website?

U.S. Department of Health and Human Services
Centers for Medicare & Medicaid Services



TOOLKIT Part 8

Will your written material be on a website?

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This document is Part 8 of the *Toolkit for Making Written Material Clear and Effective*. The Toolkit has 11 Parts. It was written for the Centers for Medicare & Medicaid Services (CMS) by Jeanne McGee, PhD, McGee & Evers Consulting, Inc. The guidelines and other parts of the Toolkit reflect the views of the writer. CMS offers this Toolkit as practical assistance to help you make your written material clear and effective (not as requirements from CMS).



Introduction

Background on the Toolkit

This document, Toolkit Part 8, is part of the *Toolkit for Making Written Material Clear and Effective*. To provide context, we begin by describing the Toolkit as a whole.

What is the Toolkit?

The *Toolkit for Making Written Material Clear and Effective* is an 11-part health literacy resource (see Toolkit Part 1). It's a detailed and comprehensive set of tools to help you make written material easier for people to understand and use. This Toolkit is from the Centers for Medicare & Medicaid Services (CMS), and it is oriented toward the programs administered by CMS. These programs include Medicare, Medicaid, and the Children's Health Insurance Program (CHIP). In this Toolkit, we focus on material in printed formats that is written for people with Medicare or Medicaid and the parents or guardians of children with coverage through CHIP. These "CMS audiences" are culturally, linguistically, and demographically diverse, and they include significant numbers of people with low literacy skills. Much of the discussion in the Toolkit also applies to material that is written for those who work with or assist members of CMS audiences. To give just a few examples, this includes material written for family members of people with Medicare, outreach workers, agency staff, community organizations, and care providers.

The Toolkit focuses on written material in printed formats

The *Toolkit for Making Written Material Clear and Effective* and its detailed guidelines for writing, design, and translation are all oriented toward written materials that people read in a printed format, typically on paper. You can also read written material on a website. In fact, the distinction between printed material and website material is not always clear. When you visit a website, you can read what's on the computer screen while you are online (and that's what websites are generally designed for), or you might print what you see on the screen and then read the printed version. Sometimes material on a website has been designed specifically to be printed and read in printed format, but often it has not.

What if your written material will be on a website?

Even though you might print what you see on a website, the differences between written material that you read in a printed format and material on a website are profound. Websites have multimedia capability, search tools, and other features that have no counterpart in written material that is printed on paper. These and other differences between printed and website materials have a great impact on writing and design.

In this part of the Toolkit, we cover these topics:

- We start by looking at how printed materials differ from websites and then discuss what these differences imply for using the guidelines and advice in this Toolkit. You will find that some of the Toolkit Guidelines for Writing and Design apply whether you are writing for a website or writing for a printed format. But many of our print-oriented guidelines would need adaptation if your written material will be on a website. In addition, there are many topics unique to websites that are beyond the scope of this Toolkit.
- We suggest some excellent resources for website writing and design.
- We offer tips on how to format material that you will distribute by website for people to download and use in printed form.

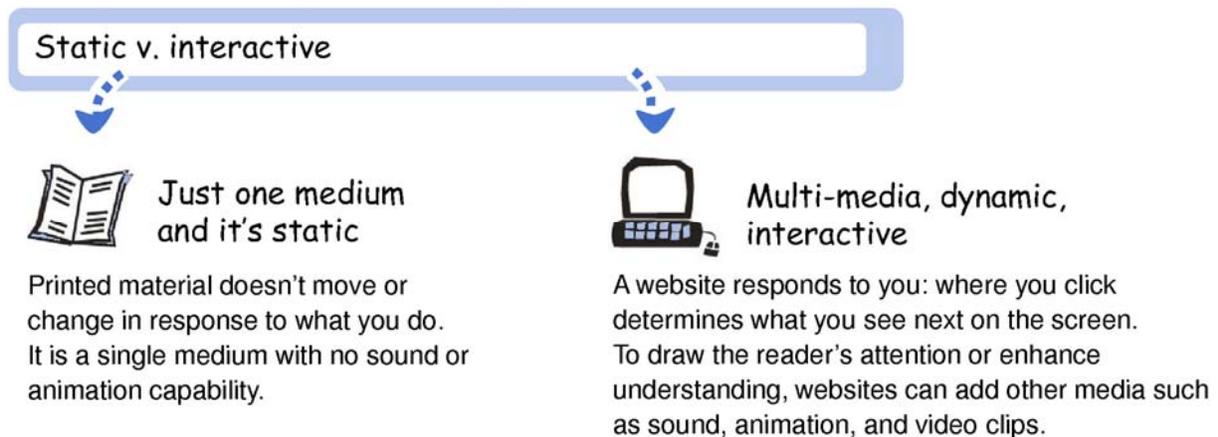


Printed materials and websites – how do they differ?

As shown below in Figure 8-a, reading something that is printed on paper is quite different from reading something on a website while you are online.

Figure

8-a. Printed materials and websites – how do they differ?



Getting access and having the skills it requires



Access to printed material is generally good; the skills required to use it are familiar to most people

Printed material and the basic navigation skills required to use it are generally familiar to people of all ages (though some people are non-readers and others differ greatly in their basic reading and navigation skills). In printed material, navigation tools include titles, headings, page numbers, table of contents, index.



Website access varies; knowledge and skills needed to use websites are not familiar to some people

To find your way through cyberspace, you need to know about such things as browser windows, URLs, scrolling, downloading, text links, graphic links, search engines, search functions, and pull-down menus. In general, older adults and people without easy computer access are more likely to lack these skills.

Variation in size, shape, etc.



Much variation in types of printed material

Printed material comes in many shapes and sizes. There are many types of paper and many ways to fold, bind, package, and deliver it.



It's basically one "screen image" at a time

Web pages themselves vary enormously, but the total reading space and format is inherently constrained: you read the material on a computer monitor, one "screen image" at a time.

How it looks to different readers



The material looks the same for every reader

Once printed, each piece of the printed material looks the same.



How the material looks on a screen can vary

The color and layout of the material may look different from one reader to the next depending on their computer equipment.

Sharpness of the text and images



Text and images can be printed very sharp

Resolution is excellent. Small text and fine details can be printed very sharp and readable.



Screen resolution is limited (but print size is adjustable)

A “page” on a computer screen can only hold so much and still have the text be sharp enough to be readable. Resolution can differ depending on computer equipment, and users can adjust the size of text on their computer screen.

Boundaries and sequence of topics



Boundaries are clear and fixed; the *writer* controls the sequence

When material is printed on paper, there is a beginning and end to it. You can see all parts of the material and know how they are all connected. The sequence of topics is predetermined and presented in the same way to all readers (though each can choose to read it any way they wish).



Boundaries are fuzzy and expansive; the *user* controls the overall sequence

In cyberspace, it can be hard to know how parts are connected and where any given material begins and ends. You see only one page at a time on a website. There is no fixed sequence of pages, and you may not see them all. You control the overall sequence of topics you see by selecting pages and deciding how to use each page (which parts to read, which links to follow, etc.)

Ease of skimming and searching



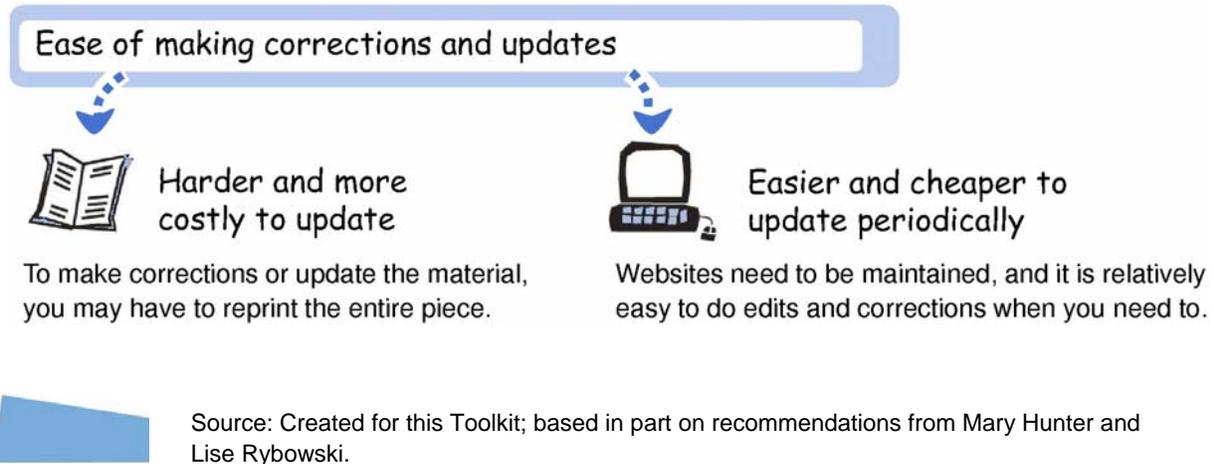
Though printed materials vary, they are often hard to skim and slow to search

If you want to search for something, you have to do it manually. How long this may take and how successful you will be depends on how the material is written and formatted. If it has dense blocks of text and few headings, it will be long and slow to skim.



Though websites vary, they are designed for easy skimming and searching

Searches in cyberspace are very fast and efficient (though the process and results may be frustrating at times). Search engines can help you find websites of interest, and then the websites often have their own search functions and other features to help you locate information quickly. The writing style for websites tends to be much briefer than for printed material. There is usually less text and it is usually easy to skim.



Do the “Toolkit Guidelines for Writing and Design” apply to websites?

As shown in Figure 8-a above, printed materials and websites differ in a number of crucial ways. Websites have multimedia capability and a host of powerful electronic search tools and other features that have no counterpart in written material that is printed on paper. Compared to a static printed format, the interactive capability of the computer offers a reader incredible flexibility and control over what is viewed and how it appears. As shown in Figure 8-a, printed and website materials differ in other ways as well, including the size and shape of the material, the amount of text that can be seen at a given time, and the resolution of the type and visuals.

The differences between printed and website materials and the navigational skills required to use them have great impact on writing and design. Since we are focusing on printed material in this Toolkit, all of our guidelines for writing and design are oriented toward printed material. Typically, this means material that is printed on paper.

You will find that some of the Toolkit Guidelines do apply to website material, but many do not:

- **Some of the Toolkit guidelines for printed material apply to website material that people read on a computer screen while they are online.** For example, a number of the guidelines that deal with choosing content, making material culturally appropriate, writing style, and ways of engaging and supporting your readers are just as applicable to website materials as they are to printed materials (see Toolkit Part 4, *Understanding and using the “Toolkit Guidelines for Writing”*).

- **Other guidelines are either not applicable to websites or would require significant adaptation for website use.** For example, some of the Toolkit guidelines that address ways of organizing and presenting information would need to be adapted for website use because of the constraint on space and resolution available on screen at any given time.
- **In addition, the Toolkit Guidelines do not cover any of the writing and design issues that are *unique to websites*.** For example, guidelines in this book do not address any of the web-specific layout and navigation issues.



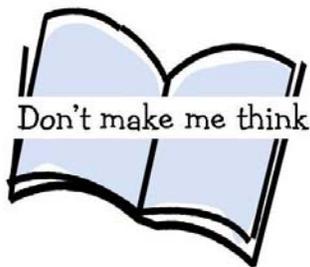
Suggested resources for website writing and design

Since the Toolkit is oriented toward material that people read in a printed format, providing detailed website guidelines is beyond the scope of this Toolkit. Below we suggest some excellent resources. Full references for all of these resources are at the end of this document.

Resources for website writing and design



This website presents the *Research-Based Web Design & Usability Guidelines* developed by the U.S. Department of Health and Human Services (HHS), in partnership with the U.S. General Services Administration. The purpose of this government website is to help you create websites that are “usable and useful.” The <http://www.usability.gov> website gives 209 guidelines about how to create websites that are “user centered.” It includes an extensive discussion of usability testing and its role in creating and modifying websites. If you want a printed copy of the guidelines, the website tells how you can order it.



Steve Krug is a usability consultant (see <http://www.sensible.com/>) who has written this humorous and insightful book on how to design websites that are usable. The book offers many tips and examples of how to design websites that are reader centered – easy to use and understand. It explains how to make web design conform to how people read (actually, scan) web pages, and how to make the websites attractive and easy to navigate.



Ginny Redish is a writing consultant (see <http://www.redish.net/>) who specializes in easy-to-read material and designs websites. This book gives practical advice about how to create, test, and revise website content. It provides numerous examples from actual websites, giving “before-and-after” illustrations about how they can be improved.

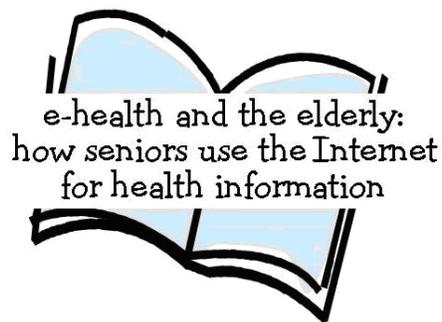


This checklist was prepared by the National Institute on Aging (NIA) and National Library of Medicine (NLM). It provides a basic set of guidelines about design elements in websites that can make websites more accessible to all adults. This checklist can be downloaded from <http://www.nih.gov/icd/od/ocpl/resources/wag/documents/checklist.pdf>.

Studies of how older readers and people with low literacy skills use the Internet



The full title of this article by Christina Zarcadoolas, Mercedes Blanco, John Boyer, and Andrew Pleasant is *Unweaving the Web: An Exploratory Study of Low-Literate Adults' Navigation Skills on the World Wide Web*. This research paper discusses the barriers that low-literate adults face when they use the Web. The authors examine both the way in which web content is written and presented, and what websites assume its users know about navigation. They give a preliminary set of guidelines that can help developers of websites.



This report from the Kaiser Family Foundation was written by Victoria Rideout, Tricia Neuman, Michelle Kitchman, and Mollyann Brodie. It gives results from a national survey of Americans aged 50 and older conducted in 2005. Among adults age 65 and older, a majority have never used computers or gone online. The report discusses the implications of these and other findings for those who rely on the Internet and computers as a way of reaching older adults.



<http://www.pewinternet.org/>

This project studies the effects of the Internet on Americans – their families, how they work, and where and how they live. It is a non-profit organization located at 1615 L Street, NW, Suite 700, Washington, DC 20036, and supported by Pew Charitable Trusts. The project produces several reports each year, based on survey data, online surveys, and occasional in-depth interviews.



Are you using a website to distribute documents for users to download and print?

Using websites as a distribution method for material that will be printed on paper

Websites are sometimes used to distribute documents that are intended to be used in a printed format (printed on paper). Instead of using a professional printer with a printing press or other large-scale commercial printing equipment, you create an electronic file and leave it up to others to do the printing. Typically, this means that the document is posted to a website in PDF format. PDF stands for *Portable Document Format*. PDF preserves the formatting of the document, including fonts. People who want to read the document can download the PDF file and print it on their own printer. No matter what printer they use, the document will look like the original (though replicating color may be an exception, depending on how it is printed).

Using a website to distribute PDF documents has implications for cost, access, and other issues:

- **Web distribution is only effective for those users who have access to computers and the skills required to retrieve and print the document** (Zarcadoolas, Blanco, Boyer, & Pleasant, 2002; Rideout, Neuman, Kitchman, & Brodie, 2005). Although Internet access is improving among most groups, there are still many people who lack computer access or the skills that are required to find, download, and print a document (Pew Internet & American Life Project). In particular, access to the Internet tends to be lower among older adults and people with low literacy skills.
- **Website distribution offers cost savings to producers.** When people produce written material and then use a website to distribute it, they save on printing and distribution. If the downloadable PDF is the only way to get the document, they save all of these costs. But sometimes the document has been printed on a press, and the PDF is offered as an alternative way to get the document.
- **Website distribution can enhance convenience for the user.** For users who have the access and skills, it can be faster and easier to retrieve the document from a website than to buy it at a store or place a phone or mail order. Of course, users bear the costs associated with printing the document they retrieve.
- **Using website distribution can enhance the visibility of a document,** bringing it to the attention of a larger group of potential readers.
- **Website distribution offers ease of updating.** It is relatively easy and inexpensive to edit a PDF document. In contrast, to update or correct a document that is printed on a press, you generally have to reprint the entire document.

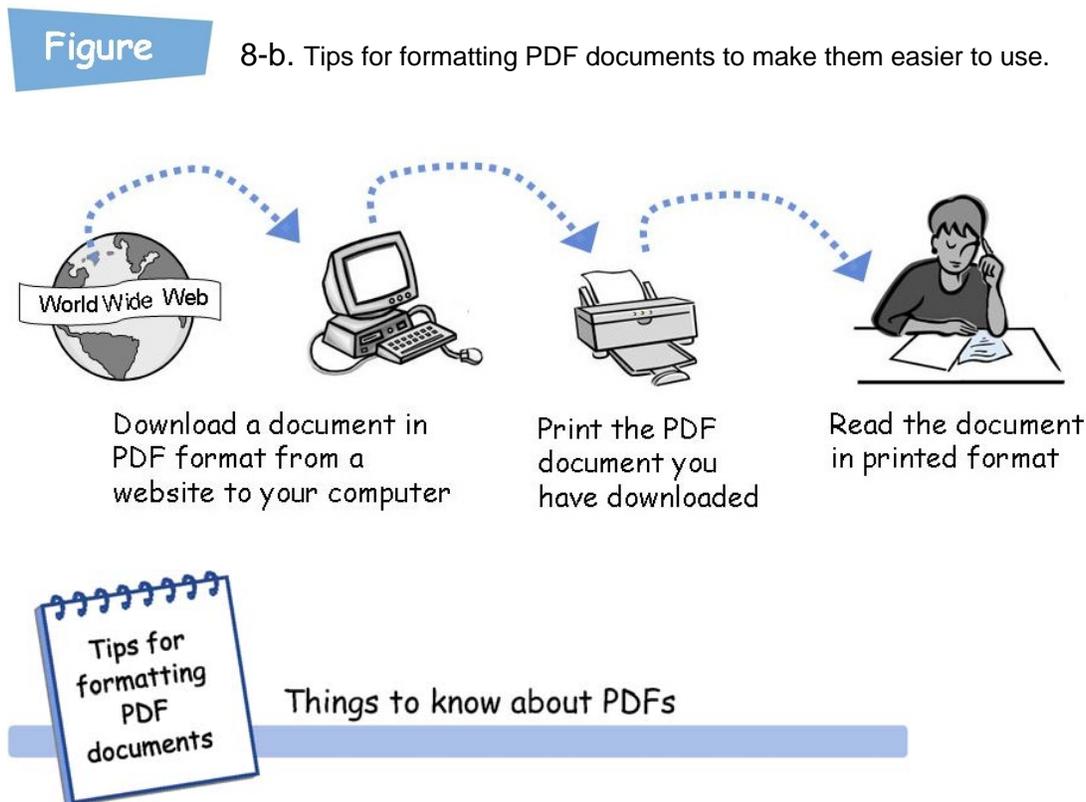
Will people have the access and skills to retrieve and print the material?

If you are thinking about using a website to distribute a PDF of your written material, take into account the Internet access and skills of the users. What counts is the access and skills of those who will be retrieving and printing the PDF, and these people may be different from the intended readers:

- For example, it would not be appropriate to use a website as the only way to distribute material *directly* to people who tend to lack the equipment and skills to deal with PDFs.
- But sometimes websites are used to distribute written material to health professionals, community organizations, or others who will print it and then give it to the intended readers. In this situation, what counts is the computer access and skills of the one who will be downloading and printing the material, not the access and skills of the ultimate readers.

Tips for formatting documents that are distributed on websites for use in printed format

If you decide to use PDFs to distribute your written material on a website, see Figure 8-b below. It gives tips on how to format these documents to make them easier for readers to use.



The discussion and tips in this Figure assume that the documents you distribute on a website will be in PDF (portable document format). PDFs preserve the original formatting of your document. This is a huge advantage.

- To use a document in PDF format, you need some software called *Adobe Acrobat Reader*. This software is free and easy to download from <http://www.adobe.com/products/acrobat/>. Once a person has downloaded the free *Acrobat Reader* to their computer, they can use your PDF document.
- The *Adobe Acrobat Reader* software has *Reader* in its name because it lets people read (use) a document in PDF format. To *create* a PDF, you need other software. You can use software called *Adobe Acrobat* to create PDFs. It offers many options for how the PDF is created, including security features you can add.



What should you assume about how your PDFs will be printed and used?

It's possible to print PDFs professionally. However, many users of PDFs will be printing them on the ordinary small printer attached to their personal computer. To create PDFs that will be easy for people to print and use, it is realistic to make the following assumptions:

- **The PDF will be printed on ordinary 8 ½ by 11 inch paper.** It's not reasonable to assume that users of PDFs will have ready access to printers that handle oversize paper. Most people who use the material will not have the combination of equipment, skills, and inclination that it takes to print a PDF in some unusual way or on some special kind of paper. This means that you should not design your PDF with the expectation that people will print it on cardstock, do special trimming and folding to create a wallet-sized card, or have an extra-wide stapler handy to staple the spine of a booklet.
- **Even if you create it in color, people will often use a black and white version of the PDF.** They may print it in black and white or they might make photocopies in black and white. Some will print it in color, but then they might photocopy it in black and white.
- **The PDF will typically be printed one-sided rather than double-sided.** To do the initial printing of a PDF as two-sided printing requires extra effort and a bit of know-how. It's safe to assume that many people won't make the effort. If they want a double-sided version of the PDF, the easy way is to photocopy it. If they have an original in color and they photocopy it as double-sided, this typically means that it will be converted from a single-sided color document into a double-sided black and white document.



How to make your PDFs easier for people to use

A PDF that you print yourself is *not* the same as a commercially-printed document. Even though a PDF preserves the original formatting, this formatting is preserved on a page-by-page basis. When a lengthy document is printed professionally, the end result is not a stack of 8 ½ by 11 inch sheets of ordinary paper printed on one side. Besides the printing itself, there is trimming, collating, binding, and a host of other possible services involved (for a good resource on printing, see Kenly & Beach, 2004).

So, to help your readers, format your PDFs based on the assumptions we listed above. This means:

- **Design them for use as single-sided 8 ½ by 11 inch sheets.** If you have designed a layout that relies heavily on a “facing pages” format, consider whether it will work well as single-sided sheets. If not, consider making changes to accommodate how people are likely to be using the material. If you want, you could offer two formats: one for single-sided printing and the other for double-sided. Creating a document that is optimized for double-sided printing means that you insert blank sheets as needed to make all of the pages fall properly as either right or left handed pages. Often this means inserting a blank sheet at the end of some sections to force the next section to start on a right-handed page.
- **It’s fine to use color in your PDF, but design the PDF so that it will also work well in black and white.** Check to see how well a version that is printed in color holds up when the material is photocopied. Since many people will end up with a version in black and white, be careful not to rely on color coding or the use of color as a navigation device. For some documents, you may want to provide two versions of PDFs, one in color and one in black and white that is optimized for photocopying or printing in black and white.

Label your PDF clearly. Clear labeling of PDFs helps users and it helps you, too:

- **Put a date on the PDF.** Since PDFs are easy to update, it helps to put the date in a prominent place.
- **Include information about the website in the document itself.** Later on, people who downloaded and printed the document might wonder where they got it.
- **Include a suggested citation, copyright information, and identify any restrictions on use.** Figuring out how to properly cite a website document can be bewildering. Help people out by including a suggested citation in the document itself. Also, be specific about the ways in which people are (or are not) allowed to use the document. If you say they need permission for certain types of use, tell them how to get permission and give them contact information.



Source: Created for this Toolkit.



End notes

Thanks to Lise Rybowski, Mary Hunter, and Mark Evers for their contributions to this Toolkit Part 8.

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<http://www.nlm.nih.gov/pubs/staffpubs/od/ocpl/agingchecklist.html>.

Pew Internet & American Life Project

This project is non-profit research center that studies and reports the effects of the Internet on Americans – their families, how they work, and where and how they live. It is located at 1615 L Street, NW, Suite 700, Washington, DC 20036, and supported by Pew Charitable Trusts. Visit <http://www.pewinternet.org/>.

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Usability.gov

This website is the primary government resource on usability and accessibility, including the latest usability research and training opportunities. It includes an online version of *Research-Based Web Design & Usability Guidelines*, developed by the U.S. Department of Health and Human Services (HHS) in partnership with the U.S. General Services Administration.
<http://www.usability.gov>.

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To view, save, or print all or parts of this Toolkit from your personal computer, visit <http://www.cms.gov> and select Outreach & Education.

CMS Product No. 11476

September 2010

