IN THIS ISSUE

Special Theme: Health Literacy

Health Care Reform Law: What it Means for Medical Communicators

Seminal Moments in AMWA History: 70 Years of Medical Communication Excellence
The AMWA Journal expresses the interests, concerns, and expertise of members. Its purpose is to inspire, motivate, inform, and educate them. The Journal furthers dialog among all members and communicates the purposes, goals, advantages, and benefits of the American Medical Writers Association (AMWA) as a professional organization. Specifically, it functions to:

- Publish articles on issues, practices, research theories, solutions to problems, ethics, and opportunities related to effective medical communication
- Enhance theoretical knowledge as well as applied skills of medical communicators in the health sciences, government, and industry
- Address the membership's professional development needs by publishing the research results of educators and trainers of communications skills and by disseminating information about relevant technologies and their applications
- Inform members of important medical topics, ethical issues, emerging professional trends, and career opportunities
- Report news about AMWA activities and the professional accomplishments of its departments, sections, chapters, and members

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In the Service of Good Writing
Laurie Thomas, MA, ELS

Melnick on Writing
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FEATURES
146 Meeting the Challenges of Health Literacy: The Medical Communicator’s Role
By Sharon Nancekivell, MA

149 Writing for Readers with a Wide Range of Reading Skills
By Leonard G. Doak, BS, PE, and Cecilia C. Doak, MPH

155 Health Literacy: Developing a Practical Framework for Effective Health Communication
By Beth A. Lanning, PhD, CHES, and Eva I. Doyle, PhD, CHES

162 Health Care Reform Law: What it Means for Medical Communicators
By Thomas Sullivan

166 Seminal Moments in AMWA History: 70 Years of Medical Communication Excellence
By Melanie Fridl Ross, MSJ, ELS, and Scott C. Thompson, ELS

DEPARTMENTS
168 BRIEFLY NOTED
169 PRACTICAL MATTERS
172 FREELANCE FORUM
174 IN THE SERVICE OF GOOD WRITING
176 PROFESSIONAL DEVELOPMENT
180 MEDIA REVIEWS
182 WEB WATCH
185 CALENDAR OF MEETINGS
186 SOCIAL MEDIA
193 LETTERS TO THE EDITOR

AMWA MATTERS
188 NATIONAL NEWS
190 CHAPTER CORNER
191 MEMBER MUSINGS
196 ADVERTISEMENTS, SPONSORS,
INSTRUCTIONS FOR CONTRIBUTORS

ONLINE EXCLUSIVES
• 2010 ANNUAL CONFERENCE COVERAGE
• PRACTICAL MATTERS
• MEDIA REVIEWS: HONORABLE MENTIONS
IN AMWA BOOK AWARDS
• RESULTS OF 2010 MEMBERSHIP SURVEY
• 2010-2011 AMWA EXECUTIVE COMMITTEE

COLUMNS
178 MELNICK ON WRITING
179 DEAR EDIE
195 PAGE BREAK
Healthy literacy, the ability to access, read, understand, and act on basic health information, is a complex, pervasive problem. According to Pleasant, health literacy is a “complex, social determinant of health.” Only about 1 of every 10 American adults 16 to 65 years of age has proficient health literacy.2 Sadly, their low health literacy skills can have a devastating effect on their health. Studies show that people with low health literacy skills have worse health outcomes, greater likelihood and severity of disease, less knowledge about health care services, and use fewer preventive measures such as screening.4 Mortality for this population is also higher.3 The most important predictor of proficient health literacy, according to a Canadian health literacy study, is daily reading; the second most important, level of education.

Proficient health literacy, however, involves more than the fundamental literacy skills of individual adults. Citing the Institute of Medicine Committee on Health Literacy2 and the Healthy People 2010 Action Plan,8 Rudd et al point to the need for change in the health literacy behaviors of health professionals and the healthcare system as integral to improving health literacy.

The health and quality of life of those with less than proficient health literacy (88% of adult Americans) is compromised by many factors, such as exposure to complex health systems;2 a plethora of confusing or conflicting information from diverse media, including the Internet;6 the use of jargon and technical language;6 and health professionals’ lack of awareness and knowledge about health literacy.4 In addition to weak reading skills, especially among the undereducated, the elderly, and some ethnic minorities, Zarcadoolas et al note several other well-recognized barriers to health literacy:10 the complexity of print and Web health information materials, their lack of cultural appropriateness, inaccurate and incomplete health communications in mass media, and the lack of materials with content that empowers health behavioral change.

Study after study has concluded that the literacy demand of health information materials outstrips the literacy levels of their readers.6,2,11 But solving this problem requires more than simplifying health messages with plain language and pictures and making sure that health information materials are culturally relevant and appropriate for their intended audiences, essential as these approaches are.11 Plain language is one powerful tool in the health literacy toolkit, but there is little evidence that this widespread practice improves health outcomes or changes health behaviors.6,12 Understanding is insufficient to change health behaviors. Cultural competency may improve health communications by building trust, but it too, on its own, does not ensure behavioral change. Some evidence suggests community-based and participatory approaches may be effective.6

To change health behaviors, Zarcadoolas et al10 suggest that the field of health literacy must broaden its scope to include active engagement and self-empowerment. It must shift its discourse from “a primary focus on fundamental literacy in health” to “a complex, social determinant of health and empowerment model.”11 It must deal with not only the symptoms of the problem, but also its root causes.11

What, then, is our role as medical communicators? We need to participate in and facilitate the necessary change in the health literacy behaviors of health professionals and the health care system advocated in the report of the Institute of Medicine Committee on Health Literacy2 and the US government’s Healthy People 2010.8 We need to educate ourselves about the scope of the health literacy problem, equip ourselves with the necessary tools, especially the techniques of plain language and cultural competency, to make our health communications effective and actionable, and, most importantly, directly engage with our intended audiences.

A good way to begin this process is by reading the 3 articles about health literacy9-15 published in this issue of the AMWA Journal. The authors offer theoretical insights into and practical advice about how to overcome many of the barriers to health literacy and to create effective health communications that empower people to change behaviors to improve their health and well-being. Lanning and Doyle,13 leading academicians in health education, outline the scope of health literacy-related issues for health communication, emphasizing the role of the medical communicator as the audience’s guide to accurate, relevant, culturally appropriate health information the audience can use. The authors outline a practical framework, based on Greenburg’s health communication model, for developing effective health communication materials. Doak and Doak,14 authors of the gold standard, essential text for writing effective health information materials (Teaching Patients with Low Literacy Skills46), help us understand how skilled and low-skilled readers make meaning out of our health information materials. Doak and Doak provide practical strategies for writing so that this diverse audience can understand and act on the infor-
mation. Osborne,15 founder of Health Literacy Month and author of several books about writing effective health information materials, presents practical guidelines for developing effective health communications in plain language, from idea to finished product. The authors of all 3 articles adhere to the golden rule that effective health information materials are all about audience! audience! audience! We must know our intended audience. We must write specifically for that audience. And above all, we must involve that audience in the development of the material at every stage of the process.

I also encourage readers to explore the many resources available on writing plainly for lay audiences (see box at right). By educating ourselves and other health professionals about the enormity of the health literacy problem and the tools for communicating health information effectively, we can become advocates and facilitators of proficient health literacy for everyone.

Author disclosure: The author notes that she has no commercial associations that may pose a conflict of interest in relation to this article.

References

WRITING PLAINLY FOR LAY AUDIENCES: USEFUL RESOURCES

Books and Articles

Plain Language and Patient Education Guides

Plain Language Lexicons and Thesauruses
Plain English Lexicon. Available at www.clearest.co.uk/index.php?id=46.

Plain Language Listservs
The Health Literacy Discussion List [the listserv of the National Institute for Literacy, or NIFL]. Sign up at www.nifl.gov/mailman/listinfo/healthliteracy.
Plain Forum [the listserv of the Plain Language Association InterNational]. Sign up by sending an e-mail to plainlanguage-subscribe@yahoogroups.com.

continued on next page

WRITING PLAINLY FOR LAY AUDIENCES: USEFUL RESOURCES (CONT.)

Workshops, Courses, and Web-based Training
AMWA Workshop, Plain Language
www.amwa.org
The Health Literacy Summer Institute
www.healthliteracyinstitute.net/
NIH Plain Language Training
http://plainlanguage.nih.gov/CBTs/PlainLanguage/login.asp
Harvard School of Public Health, Health Literacy Links
www.hsph.harvard.edu/healthliteracy/links.html
Health Literacy for Public Health Professionals
www.cdc.gov/healthmarketing/healthliteracy/training/
Unified Health Communication (UHC): Addressing Health Literacy, Cultural Competency, and Limited English Proficiency
www.hrsa.gov/publichealth/healthliteracy
Exploring Cross Cultural Communication
www.nynj-phtc.org/pages/catalog/cc

Our pages are overflowing this month!
There are an unprecedented number of online-exclusive articles in the December issue. Make sure you read the entire issue by visiting the Journal area on the AMWA Web site (www.amwa.org), where you’ll find additional interesting reading and valuable information. The December online-exclusive articles are
• Conference Coverage, including summaries of sessions and invited speakers’ presentations, biographies of award winners, and photos
• Practical Matters: Successful Navigation Across Cultures in Medical Writing
• National News: Results of the 2010 Membership Survey and introduction to your 2010-2011 Executive Committee
• Media Reviews: Reviews of books receiving Honorable Mention in the 2010 AMWA Medical Book Awards
• Chapter Corner: Report from a Northwest Chapter event and from the November Chapter Delegates Meeting

ONLINE EXCLUSIVE
A problem when writing for a wide audience is to make the text suitable for those with limited reading skills and also acceptable by those with high reading skills. How large is the population of American adults with low literacy skills? The National Assessment of Adult Literacy (NAAL) in 2003 reported that (for combined prose and document literacy) approximately 40% of American adults have proficiency at level 1 and below—the most basic of the 5 proficiency levels. Although there is no equivalency between NAAL scores and reading grade levels, level 1 approximately compares with a 6th- to 7th-grade reading level. For individuals older than 65 years, the percentage of adults at level 1 and below is considerably greater.

For the first time in 2003, the NAAL also reported separately on the specialized topic of health literacy of adult Americans. For level 1 and below, the results were quite similar to those already noted. Readers with low skill levels have difficulty understanding many written patient instructions, in using the information to carry out the instruction, and in solving health-related problems. The National Action Plan to Improve Health Literacy elevates the problem and states that only individuals with full proficiency can successfully understand and act on all their health care instructions. This suggests that if medical communicators want their messages understood by a large majority of American adults, they must write for readers with a wide range of reading skills.

This task is not impossible. Surveys have shown that adults at all reading levels prefer text that is simply stated. To write simple text does not mean to "dumb it down," but rather to include common vocabulary and simple and predictable structures for sentences and paragraphs. It also means avoiding jargon, complex statistics, and extraneous content that the individual is unlikely to ever need or use. Those with low reading levels lack a skill—they are not lacking in intelligence. If instructions are written appropriately, they can understand them.

ROLE OF MEMORY IN READING

A few facts about memory may be useful here. Basically, memory may be considered to have 3 main processing systems: sensory information processing, short-term memory, and long-term memory. The principal systems used in reading are long-term and short term memories, with short-term memory as the most active in the immediate reading process. Short-term memory lasts only a few seconds to several minutes and is limited to about 7 independent items (a word, a name, an item on a list, a sentence) at any instant; the list has been coined "the magical number seven." This finding means that long lists and complex sentences will not be remembered or understood by many readers.

Although highly skilled readers may be able to remember as many as 7 independent items in short-term memory, the number is likely to be...
lower—perhaps 3—for less skilled readers. Skilled readers grasp whole groups of words and can retain a group or sentence as a single item. Each of their items can contain many more words than can be retained by the less skilled reader. As a result, skilled readers can understand the meaning of the sentence or paragraph quickly. By comparison, individuals with low reading skills who are reading word by word tend to store each word as an item in memory and may forget some of the words that came before, especially in long sentences. However, these readers may be able to manage longer sentences if the information is presented in common words that they can easily read and “chunk” as groups rather than as single words; for example, in an easy-to-read story or a quotation in a testimonial. One might think that the limits of short-term memory do not matter in the setting of written materials because the reader could refer to the text as many times as needed. However, evidence shows that most individuals read health-related instructions only once and take action based on what they remember. Additional research is needed on this issue.

Images and pictures have many more access points to the brain than do individual words. When pictures are used with text, readers are much more likely to be able to recall the information.

**DIFFERENCES BETWEEN READERS WITH HIGH AND LOW READING SKILLS**

Reading is a process during which information from the text and the knowledge possessed by the reader act together to produce meaning. Highly skilled readers quickly integrate the information in the text into meaning and associate it with what they already know. Skilled readers are constantly aware of where they are in the document and can often anticipate what may follow. Furthermore, skilled readers are able to use the new information in problem solving.

Individuals with limited reading skills face major obstacles: it is difficult for them to integrate new information into their existing knowledge, to know that they need help, and to know how to obtain that help. Drawing inferences and using them for problem solving are reading-related skills that go beyond simply decoding words and understanding the text. According to Bonnet et al, “Persisting errors after education seem to stem from a poor integration of information by the patients.”

For good readers, it is difficult to imagine reading slowly, word by word. Trying to read the following backward-words sentence for meaning demonstrates the experience.

```
coololcA noitsegs有足够的单词 noppu etauqedani yrateid ekatni nac etatipicerp ituca aicemgypyl.
```

In addition to reading speed and fluency, there are many other differences between skilled and limited-skill readers, and there are strategies for managing these differences (Table 1).

<table>
<thead>
<tr>
<th>Skill Level</th>
<th>Strategies to Manage Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Reads rapidly</td>
<td>Reads slowly (word by word), may miss the meaning</td>
</tr>
<tr>
<td>Grasps the context</td>
<td>Misses the context</td>
</tr>
<tr>
<td>Copes with difficult vocabulary</td>
<td>Skips over difficult words</td>
</tr>
<tr>
<td>Integrates information, interprets meaning</td>
<td>Takes words literally, may not integrate information</td>
</tr>
<tr>
<td>Persists, is motivated</td>
<td>Tires quickly, quits</td>
</tr>
</tbody>
</table>

**STRATEGIES TO INCREASE EASE OF READING**

It may seem that we need to make adjustments in written text only for less-skilled readers, but research shows that these adjustments and strategies will also make documents more rapidly understandable by those with highly developed reading skills. Several key strategies can help increase the ease of reading (Table 2).

**Promote readability**

Readability formulas predict that, in general, text is easier to read and understand for people at all literacy skills when text has shorter average sentence lengths and words with fewer syllables (eg, “use” rather than “utilize”). Writers of military manuals are required to keep the average sentence length to 15 words or less. Using computerized readability formulas, you can check the approximate readability level of a document in a matter of minutes; a little longer if you check manually. In addition to the readability formula factors mentioned

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Table 1. Key Differences between High- and Low-Skill Readers

<table>
<thead>
<tr>
<th>Skill Level</th>
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</tr>
</thead>
<tbody>
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<tr>
<td>Persists, is motivated</td>
<td>Tires quickly, quits</td>
</tr>
</tbody>
</table>
Table 2. Summary of Strategies to Increase Ease of Reading

<table>
<thead>
<tr>
<th>Promote readability</th>
<th>Write for 6th to 7th grade level by using common words and an average sentence length of 15 words or less. Use active voice and conversational style.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance context</td>
<td>In sentences and paragraphs, present the context first before stating the new information.</td>
</tr>
<tr>
<td>Explain less common words</td>
<td>Give examples to explain less common words, especially concept, category, and value judgment words.</td>
</tr>
<tr>
<td>Use visual aids</td>
<td>Including simple line drawings, along with captions that tell what is most important to look at in the picture.</td>
</tr>
<tr>
<td>Make text look and feel inviting</td>
<td>Include patient interaction with the document via questions and answers, blanks to write in, and brief reviews. Leave plenty of white space on the pages, avoid dense blocks of text, use a font size of at least 12 points.</td>
</tr>
</tbody>
</table>

earlier, it is well known that active voice and conversational style make for easier reading, as does keeping the verb and subject close together in a sentence. We have found that testimonials and narrative are almost always the parts of patient instructions that are the easiest to read. There is considerable controversy about the reliability of readability formulas. It is well established that even a low readability level does not guarantee an easy-to-understand document. The formulas were originally designed to ensure that books for children were written at appropriate school-grade levels. The most commonly used formulas are likely to be the Flesch-Kincaid, SMOG, and the Fry chart, and the grade-level results vary across these formulas and are not precise within a given formula. For example, the SMOG formula is believed to be accurate to only about 1½ grade levels. For some documents, the formulas may indicate readability results that may vary even more widely. For example, the readability formula in Microsoft Word is truncated at the 12th grade level (a college level document will show a maximum of 12th grade). Furthermore, to prevent misleading results from Word, you may need to modify the document before applying the formula, as the formula would consider an abbreviation (such as “Dr.”) as a complete sentence. With all these issues, why then should we consider using a readability formula? First, the formulas do give us an approximation of the readability level. Second, many medical centers, state health departments, agencies, pharmaceutical companies, and others are increasingly specifying a maximum grade level for health-related documents. The specified grade level “standard” may range from 4th to 10th grade but is most often the 6th grade.

Help readers grasp the context
Research tells us that to help readers grasp the context, it should be stated first, before giving new information. Doing so allows readers to select a place in their existing knowledge to put the new information that follows, which makes it easier to recall it. In the following examples, the second sentence is more effective.

Information given before context: Eating broccoli, spinach, collard greens, lettuce greens, rhubarb, Brussels sprouts, kale, beet greens, and carrots can reduce your risk of certain kinds of cancers.

Context given before information: The foods you eat affect your health. You can reduce your risk of certain cancers by eating broccoli, spinach, collard greens, lettuce greens, rhubarb, Brussels sprouts, kale, beet greens, and carrots.

Presenting the context first is especially helpful when the reader, at any skill level, is not familiar with the subject. Descriptive headings and subheadings can also give clues to the context.

Explain less common words
For patients at all literacy levels, unfamiliar vocabulary may not be understood. This situation often arises in descriptions of medical tests, treatment options, and care management. When the medical subject is unfamiliar, readers tend to take the words literally. Doctors and nurses know the circumstances and time limitations of their recommendations, but the lay audience may not. For example, one patient was instructed to take stool samples over a period of days to check for blood, usually visible by black stools. The nurse advised the patient not to eat beets, as that turns stools black. The patient, an intelligent woman, took the nurse’s words literally and never ate beets again for the remaining 15 years of her life.

The medical field uses many words with Latin or Greek prefixes or suffixes; for example, “prenatal,” “postpartum,” and “atypical.” These are hard words for people with limited reading skills, as they may grasp only part of the word and assume a reverse meaning. At times, however, uncommon medical words must be used; in such cases, the following can help improve readers’ understanding.

- Explain uncommon words by following them with other more common words.
- Use an example that explains the word.
- Refer to a visual that illustrates the meaning of the word.

In addition, more common words may also be confusing. For example, the word “avoid” is frequently used in
health instruction, especially in nutrition. We tested the meaning of the sentence “Avoid the following foods…” with 11 patients selected at random in a metropolitan hospital. Ten of the 11 had no idea what the sentence meant. Some shook their heads and said, “Oh, I just skip over it.”

Over a period of 30 years, we have received and assessed the suitability of more than 2,000 health care instructions in nearly all media. Many of these documents included comments by the submitting health care professionals as to words and topics their patients have difficulty understanding. The assessments showed that a common source of the comprehension gap between patients and their instructions often rests with 3 kinds of words: concept, category, and value judgment words. An effective strategy to overcome this comprehension gap is to use examples to illustrate the meanings of these types of words.

An example of the use of concept words in patient instructions is the sentence, “We want to get your glucose in the normal range.” The reader may think, “Well I know what normal is, and I have a range in my kitchen. What is she talking about?” Adding the phrase “that means a glucose between 70 and 130” can provide an explanation. Even seemingly common words such as diet or simple pictures such as the food pyramid require an example to explain what is meant. To many, the word diet means Jenny Craig or some other commercial product. Use a phrase after the word “diet” such as “all the foods you usually eat and drink” to help clarify. The food pyramid could be described with the phrase “This is a picture idea of which foods to eat more of and which to eat less of.”

Category words can also be misleading. At a dialysis clinic, we tested parts of a nutrition pamphlet that advised patients to eat red meat but not shellfish and poultry. One patient quickly read and seemed to understand the diet advice, but on further questioning he said he eats lots of fried chicken. When asked, “But what about poultry?” he replied, “Oh, I never eat poultry; we’re not supposed to have that.” A clearer statement might be “Don’t eat chicken, turkey, or duck.”

Value judgment words, as in “excessive bleeding,” “adequate rest,” and “regular exercise,” can be unclear and thus confusing. The reader is left with questions such as How much bleeding is excessive? How much rest is adequate? How often is regular? Again, an effective strategy to overcome the comprehension gap is to use specific examples to answer those questions. For example, instead of “If there is excessive bleeding,” write “If there is bleeding through your bandage.”

Use pictures to help interpret the meaning

Research shows that patient understanding, recall, and compliance can be markedly increased—up to 500%—when pictures are included with text. Writers can help individuals understand health care instructions and other documents by including appropriate pictures with captions and by having the text refer to the pictures. Agencies and institutions seldom restrict the use of visuals in patient instructions. Simple line drawings and pictographs (such as “stick figures”) work best because they can convey the image without background distractions that often appear in photographs. Line drawings can be produced quickly and are less expensive.

During Hurricane Katrina, an agency provided written emergency instructions on what to do in a hurricane and during flooding. The instruction on the hazards of gas and electric utilities was presented as a dense paragraph with 14 facts and actions to take. It was written at a 10th-grade reading level. During the stress of the emergency, this instruction is not likely to be useful. We rewrote the instruction stating the key facts in bullet format and showing simple pictures of what to do (Figure 1).

![Figure 1. Our revision of emergency instructions about what to do in a hurricane and during flooding.](image-url)
Make the text interesting and look easy to read
Readers are encouraged to read further when they interact with the text. Interaction may be in the form of a question and answer that lets readers feel satisfied that they "got it" or may be a simple review of the key point. Inviting the reader to respond by writing in a blank space can be an effective form of interaction. A visual aid is an especially effective way to help readers confirm their understanding of a section they have just read. To foster the reader’s self-efficacy (a belief that "I could do this"), consider adding testimonials from people who have successfully followed the advice given.

Even good readers may tire quickly when reading difficult or unfamiliar topics that are found in health care. Many less-skilled readers have learned through frustrating experiences that they may not understand what they read and may quit on the first page. For these readers, the text not only needs to be easy to read but, equally important, it must look easy to read. The latter can be achieved in many ways, including the following:15

• Keep most sentences and paragraphs short.
• Use several headings to prevent the appearance of dense text.
• Use a line length of approximately 50 characters and spaces (40 to 70 range).
• Leave plenty of white space on the page.
• Use a font size of 12 or larger.
• Avoid the use of all capital letters.
• Include illustrations, examples, and testimonials.

In addition to the strategies and methods described in this paper, many principles, articles, and guidelines are available in the literature and online.

TEXT FOR VIDEOS AND WEB SITES
Text on video and Web pages presents special problems. For video, a much shorter average sentence length is necessary because the onscreen reading time may be short. For Web sites, viewers expect small information bites, so a good rule is to limit the content to 1 idea per page. Assuming adequate font size is used, font styles most critically affect reading speed—an important factor in reading fast-moving video. Avoid using script styles (for example, italics), and all capital letters, as they reduce the reading speed for both skilled and low-skilled readers.16 (With all capital letters, all words are rectangular shaped, and therefore we lose the reading cues provided by the shapes of the words due to letter heights and below-the-line extensions.)

LEGAL AND CULTURAL ISSUES
Legal documents in the health care setting can present dilemmas for medical communicators: documents such as consent forms and Health Insurance Portability and Accountability Act (HIPAA) privacy notices must meet the intent and letter of the law and yet be written in plain language. Nearly all consent forms are legal documents and nearly all are written at a college level.20 One approach to satisfy the needs of both patients and lawyers is to write the document in 2 parts: an easy-to-understand part at the front of the document, followed by the full legal text in the second part. Another approach is to use the familiar newspaper “layered format” that is arranged to flow from the most general or most important information to the more detailed. Use examples to help explain what is meant by many of the legal statements.

Each culture has its own logic with respect to health, and it is important to address cultural issues related to the audience of health-related documents. For example, many racial/ethnic groups believe that the doctor knows best; such an authority figure is seldom questioned, even if a patient thinks the doctor has misunderstood them. One way to make it easy for patients to ask questions of their doctors is by modeling questions after the AskMe3 initiative developed by the Partnership for Clear Health Communication at the National Patient Safety Foundation.21

This initiative is designed to promote better patient-clinician communication by encouraging patients to understand the answers to 3 questions.

What is my main problem?
What do I need to do?
Why is it important for me to do this?

Another approach is to include a visual example of a patient asking questions of a smiling doctor or nurse, which shows the reader it is okay to ask questions.

Metaphors and analogies can be used by writers to explain complex concepts. However, one must be aware that the interpretation is open to the culture of the reader. Thus, a metaphor may be easily misunderstood. Low-skilled readers often interpret words literally, thereby missing the meaning. For example, some Privacy Notices may state that the health record serves “as a tool to help the health care professionals.” But in many readers’ minds, tools are like hammers, saws, drills, and they wonder how pieces of paper can be a tool.

ASSESSING THE SUITABILITY OF A DOCUMENT
There are 2 ways to assess the suitability of a document: reviewing your document with a list of suitability criteria, or assessing the document with a sample of the intended patient audience. Both are highly desirable, but using a list of criteria is the most convenient and least time consuming. A widely accepted criteria list is found in Suitability Assessment of Materials (SAM),11 which contains 22 criteria-based factors grouped under 6 headings:

• Content
• Literacy demand
• Graphics
• Layout and typography
• Learning stimulation, motivation
• Cultural suitability
The second assessment method is to field test with a sample of the intended patient audience (see www.hsph.harvard.edu/healthliteracy, chapter 10). Sample sizes as small as 30 are often adequate, even for a nationally distributed document. We have found that if anything is seriously amiss, it almost always becomes evident within the responses of the first 10 readers.

CONCLUSION
To reach a wide audience, medical communicators must respond to the differences between skilled and low-skilled readers. Research-based strategies are available to accommodate nearly all readers. The following strategies will have the greatest impact.
• Make the text easy to read and look easy to read.
• Present the context first, and make the text interactive with the readers.
• Use simple visuals with captions and refer to them in the text.

Individuals will better understand, recall, and comply with health-related instructions that are developed by medical communicators who make use of these strategies.

Author disclosure: The authors note that they have no commercial associations that may pose a conflict of interest in relation to this article.

Acknowledgment
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Health literacy—the ability to read, understand, and act on basic health information—is a relatively new concept linked to health status. Recent reports indicate a national and international lack of health literacy skills, leaving many individuals vulnerable to poor health outcomes. Adequate health literacy is necessary for people to access health information, take control of their health management, and positively affect their overall health status. Health communication is an integral part of health literacy and is an essential skill in health promotion. We examine the concepts and definitions of health literacy and provide a framework for medical communicators to use in developing effective health communications.

Inadequate health literacy is one of the most significant contributors to poor health and health disparities, along with inadequate access to health care. According to the 2003 National Assessment of Adult Literacy, 36% of the US adult population has basic or below-basic health literacy. Although these individuals may have the skills necessary to read short, commonplace prose and understand simple documents, they lack the skills needed to complete more complicated tasks, such as determining when to take prescription medication based on information on the drug label.1

The low literacy problem escalates with age. Nearly half of the older US population has low reading skills.2 In one study, researchers found that 81% of patients over 60 years old could not read and understand basic prescription labels and appointments.2 Difficulties such as this can result in costly medication mistakes. In addition, health care costs have been shown to be more than 4 times higher for individuals with low health literacy than for those with high health literacy.3 Furthermore, individuals with chronic diseases (eg, diabetes, high blood pressure, and heart disease) and low health literacy have less understanding about their disease and experience more negative outcomes than do individuals with higher health literacy.2 Thus, effective health literacy and communication are critical to good health outcomes and lower health care costs.

Health literacy entails more than the ability to read. It is defined as the "degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."4 More broadly, the World Health Organization states, "Health literacy presents the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use information in ways which promote and maintain good health."5

The wide array of health literacy definitions that currently exist can be helpful in developing a fuller understanding of the multiple aspects of health literacy.6 This general understanding is of limited use, however, in the absence of clearly identified and distinct components. In order to improve health literacy, we must first define health literacy in terms of concrete, measurable constructs that can serve as functional targets for change and measures of success.5,7

Functional health literacy has been characterized and measured by an individual's ability to do the following.7

- Read consent forms, labels, and other written health materials
- Understand written and oral information provided by health care professionals
- Act on procedures and directions related to medications, appointment schedules, and other health directives

These 3 levels of functional health literacy are dependent in part on the degree to which the health information is designed to facilitate this type of patient response.

Many researchers, such as Nutbeam,4 Greenburg,8 and Kolb,10 have made significant contributions to the understanding of the communication and learning processes that enhance functional health literacy. Their findings support the need to organize key communication and learning concepts into a workable action guide/matrix for health communication specialists and health professionals to promote higher levels of functional health literacy.

A HEALTH COMMUNICATION GUIDE TO FUNCTIONAL HEALTH LITERACY

If proficient health literacy is key to good health and lower health care costs, and health literacy is linked to good communication, then who is responsible for ensuring that individuals obtain these skills? The responsibility does not rest on one person's shoulders but, instead, is shared by all invested partners: patients, health care professionals, insurance companies, and government entities. Developing effective health communication messages can be challenging. Therefore, it is imperative that health and medical communicators understand the conceptual framework of health commu-
communication and how each component is an essential and complex piece of the communication process.

Jerrold Greenberg, a well-known health educator and health communication specialist, has proposed a health communication model to help clarify the communication process. The model consists of 4 components: sender, message, medium, and receiver. According to Greenberg, health communication flows in a linear fashion through these components and is influenced and molded by various factors. Although this may be true in some settings, others posit that communication is more of a cyclic or interactive process. For example, Collins Airhihenbuwa, a leader in multicultural health education, argues that culture is a powerful force through which communication flows and is influenced (Figure 1); therefore, a linear model would not be applicable in many global settings. Recognizing the limitations of the classical linear communication model, we propose using Greenberg’s model as just a starting point. This model can serve as a useful guide for better health communication when each component is considered within the framework of the functional health literacy skills of reading, understanding, and acting. We refer to our framework as an action guide to health communication, to help medical communicators promote functional health literacy.

**Sender**
The sender in the communication model is the originator of the message. However, according to Greenberg, the sender is not the health professional or communicator but, rather, society. Health-related societal messages are conveyed through a variety of communication channels, such as advertising, television, movies, music, and other mass media channels. Society and its associated cultures often impose a powerful level of influence on individual and group attitudes, beliefs, and behaviors. This influence creates a type of lens through which a person views what is acceptable, thereby predisposing a person to a particular behavior. For example, the message may be that smoking is unhealthy or exercise is beneficial, but an underlying societal/cultural attitude may be that smoking is acceptable and routine exercise is too much work and not truly critical for day-to-day life. In this case, if the person first hears a societal message what is acceptable, thereby predisposing a person to a particular behavior. For example, the message may be that smoking is unhealthy or exercise is beneficial, but an underlying societal/cultural attitude may be that smoking is acceptable and routine exercise is too much work and not truly critical for day-to-day life. In this case, if the person first hears a societal message that smoking is acceptable and exercise is unimportant, he or she may be reluctant to pursue or accept another message regarding smoking cessation/avoidance or the benefits of exercise.

We suggest that 2 additional senders should be identified. One of those senders is a natural fit for Greenberg’s original target of society as the message sender. Pharmaceutical companies and other for-profit health industries that promote the use of their products and services in society can contribute to health literacy levels in positive or negative ways. Although many pharmaceutical companies provide accurate and useful information that can be used to promote health literacy, some messages in this for-profit category provide distorted and inaccurate messages that can confuse individuals and make it more difficult for them to sort through conflicting health messages. This is particularly true when messages are designed to promote the use of ineffective products or products with little-to-no proven impact.

A second type of sender of health messages that has an impact on health literacy includes what is referred to as institutional health systems. Research institutes, professional education schools and programs, health care delivery systems, health promotion agencies and organizations, and other institutions serve as valuable sources of health information and service resources that, if properly packaged, can enhance health literacy and promote health and well-being. However, it is often up to individual health professionals or teams of professionals who work on the front line of health care and health promotion to interpret the messages from society, for-profit health industries, and institutional health systems in ways that make sense and can be used by individuals and community groups.

When considering the sender and its impact on the development of the 3 functional health literacy skills: reading, understanding, and acting, several guidelines emerge (Table 1). For example, the medical communicator should verify that the information is originating from a reputable, accurate source and help the receiver (the health client) identify several user-friendly, reliable sources of health information. For the receiver to understand and act on the information, he or she must believe that the information is relevant and culturally appropriate (ie, congruent with his/her cultural beliefs) and that the action required is within his or her skill level.

**Message**
The message must be examined for accuracy and appropriateness. With health messages perpetuated by magazines, newspapers, and electronic sources, individuals can easily access information about almost any health subject. Unfortunately, that does not mean that the information is accurate or appropriate. For example, Meric et al examined 200 Web sites that presented cancer information and noted the frequency of Web site access and the qual-
ity of information provided by each site and found that the more popular Web sites did not necessarily have the best quality of information. Impicciatore et al discovered a similar dilemma regarding available online information about fevers in children. These authors found that only a few of the 41 Web sites they identified had complete and accurate information about this simple and common health concern.

Because information availability is not a reliable indicator of its accuracy, a reliable system for evaluating message accuracy is needed. In a structured analysis of 100 Web sites, Fallis and Fricke identified 3 common indicators of Web site quality that medical communicators and receivers can use to identify accurate message sources. These include the display of the HONcode (Health on the Net Foundation's Code of Conduct) logo, use of the organization as part of the domain name, and the existence of a copyright statement. It is also imperative that medical communicators understand how to evaluate current information for accuracy, have a working knowledge of research methodol-
ogy, and be able to distinguish between evidence-based and sensationalized information.

The appropriateness of the message is critical for effective communication, and what is applicable to one audience might not be relevant to another. For example, encouraging a person to exercise 5 times per week may be good advice for someone who is already semiactive but may not be appropriate for an individual who is sedentary. Sometimes, a well-intended message can even cause adverse effects on the receiver. Greenberg describes this condition as iatrogenic health education disease (IHED), which occurs when a person feels overwhelmed by the health message or takes the health message to an unhealthy level. Examples of IHED are a person who is bombarded with so many messages about unhealthy foods that he or she feels it is futile to try to eat healthfully, or a person who begins to exercise to increase his or her health status and becomes “addicted” to exercise. To prevent IHED, a medical communicator should appropriately tailor the message to the receiver’s health needs and to what is reasonable for that individual.

The message also needs to be delivered in such a way that promotes an increase in functional health literacy of the receiver. For a growing number of individuals in the United States, English is not the first language. Messages should be linguistically appropriate for their intended receivers and be translated from the original English when necessary. Back translation is highly recommended to maintain accuracy. Back translation is an effective method for validating a translated document. The process consists of a bilingual individual translating from the source language to the target language, with a second bilingual person translating the resulting target-language version back to the source language. This process may be repeated several times and the first and last source-language versions compared. In addition, working with a qualified translator and cultural expert can be helpful when designing the message so that it is accepted by the receiver.

Most literacy experts recommend that material be written at a 5th to 8th grade reading level. The sentence structure should be kept simple, using plain language techniques that avoid the use of acronyms, long sentences, and words with multiple syllables. The use of bullets, pictures, and flow charts can also be helpful for individuals with low literacy levels. Focusing on the desired behavior and providing simple instruction on the steps necessary to achieve that behavior is important for the receiver to act on the provided information. Finally, piloting the message with a small sample of the targeted audience can give the medical communicator important insight into the group’s level of health literacy and the appropriateness of the message.

In sum, in order for the receiver to read, understand, and act on the information, the message must be developed in such a way that it is culturally and linguistically appropriate for the intended receiver.

**Medium**

Greenburg argues that there are several types of mediums, or ways to “package” the message. A medium can refer to the message itself (eg, radio announcement, Web site content, brochure) or to a person who delivers the message (eg, physician, medical communicator, health educator, nurse). The choice of medium is the critical step in the communication model and probably has the largest influence on health literacy. If the message is not readable, understandable, and/or culturally acceptable, the desired health outcome will be jeopardized. Although health information is abundant and available in many different forms, it is not accessible by all. For instance, 88% of all Internet users live in industrialized countries, yet this represents 15% of the world’s population. Eight of every 10 Web sites are in English, but only 1 in every 10 people worldwide speak English. Thus, even though messages can be delivered electronically or on paper, approximately 876 million adults in the world will not be able to understand them.

In his conceptual model of health literacy, Baker stresses the importance of the resources a person needs to utilize health information effectively. Factors such as reading fluency, vocabulary, conceptual knowledge of health and health care, ability to understand written health information, and ability to communicate about health all contribute to the understanding and utilization of the information by the receiver. Most of these resources are addressed when considering the receiver, but it is important to think about the receiver’s capacities when determining the most effective medium for a message. Baker recognizes that although health-related print literacy and health-related oral literacy may not be completely independent, they both depend on an individual’s reading fluency, health vocabulary, familiarity with the health concepts, and the complexity and difficulty of the printed or spoken language.

Health literacy is determined both by characteristics of the individual and by the individual’s environment. Therefore, a comprehensive evaluation of health literacy in a specific population may not be feasible for all programs. There are, however, some simple guidelines that can be used when preparing health information. These guidelines, as outlined in the 2003 National Assessment of Adult Literacy document, are particularly useful when working with low-literacy adults, a population considered the greatest priority, because adults make critical medical decisions for themselves and their families.

According to the 2003 National Assessment of Adult Literacy, the information medium selected by an individual is greatly influenced by his or her level of health literacy. Adults with intermediate or proficient health literacy typically receive health informa-
tion by traditional and nontraditional printed material, such as newspapers, magazines, Internet, friends, family, radio, and television. In contrast, adults with basic or below-basic health literacy levels rely more on nonprint sources, such as the radio and friends. This means that over one-third of adults will rely more on nonprint forms of communication. These numbers increase when age, ethnicity, and education level are factored into the equation. In addition, the general guidelines proposed by the Office of Disease Prevention and Health Promotion can be a good preliminary checklist to help medical communicators develop effective health education messages (Table 2).23

**Table 2. Checklist for Improving the Usability of Health Information**21

- [✔] Identify the intended users
- [✔] Use pre-tests and post-tests
- [✔] Limit the number of messages
- [✔] Use plain language
- [✔] Practice respect
- [✔] Focus on behavior
- [✔] Check for understanding
- [✔] Supplement with pictures
- [✔] Use a medically trained interpreter or translator

An important consideration when selecting the appropriate medium for a message is how it will affect the receiver’s ability to understand the message and act on the information. It is the responsibility of the medical communicator to use a medium that is both culturally acceptable and comfortable for the individual. Low reading and health literacy levels are an embarrassment to some individuals; this embarrassment, as well as cultural influences, results in their not asking questions about their health or medications. For example, if a person reads at a fourth grade level and is asked to fill out a patient information sheet, her or she may not understand all of the words and will just mark “no” so that he or she is not questioned about the answers. Oral communication can be used to help validate understanding, especially if it is conducted in a manner that does not embarrass the receiver. For example, many cultures rely heavily on storytelling to transfer information. This is an effective medium that should also be considered beyond the more commonly used written form.

**Receiver (Health Client)**

The final component of Greenberg’s health communication model and the last block of the communication guide is the receiver, or the health client. In health education, the receiver is not only the recipient of the health message but also the person whose health needs the senders are trying to address. A receiver could also be a gatekeeper (ie, a key person in the community) or a person from whom the medical communicator is trying to solicit funding for a special health intervention. The ability to choose the right message and the most effective communication medium starts with understanding the intended receiver. The communication process is shaped and influenced by a person’s educational level, social economic status, and cultural background. To truly understand receivers, medical communicators need to “walk in their shoes and listen to their stories.”24 Airhihenbuwa emphasizes the need to see a person not just as an individual but also as part of an extended family or neighborhood.25 For example, the traditional African American belief that personal choices and behaviors affect one’s destiny can be helpful for the medical communicator when trying to encourage new health behaviors.26 Cultural beliefs can also present barriers to the communication process. Research on cancer rates in Asian women, specifically Hmong women, indicates that one of the significant barriers to health care is the women’s belief about cancer and death.27 The Hmong traditional view of disease is that it is a loss of spirit and the illness is treated by a shaman who restores balance between the living and spiritual worlds.28,29 This differs from the traditional Western medical approach that a disease is caused by a specific pathogen or physical condition.

In addition to cultural influences and educational levels, one must also consider differences in learning styles. Whether culture influences learning styles or the learning styles exist despite the specific culture is still debated.30,31 Regardless, it is important to understand that people think and process information in different ways. The way individuals learn and process information can be explained by several theories. Two of the most common are Kolb’s theory of learning styles and Armstrong’s theory of multiple intelligence. Kolb divided the learning process into 2 main categories, perception and process, and established a continuum of learning within each category.10 When individuals perceive information, they usually perceive it through concrete experience (feeling), abstract conceptualization (thinking), or somewhere in between. When processing information, learners fall somewhere on a continuum between the 2 extremes of active experimentation (doing) and reflective observation (watching). From this, Kolb identified 4 different learning styles—divergers, assimilators, convergers, and accommodators. Divergers are best at viewing concrete situations from many different points of view; they like to brainstorm and have broad cultural interests. Assimilators are best at understanding a wide range of information and putting it into concise, logical form. Individuals with an assimilating style are less focused on people and more interested in ideas and abstract concepts. Convergers have the ability to solve problems and make decisions based on finding solutions to questions or problems; they prefer to deal with technical tasks and problems rather than with social issues and interpersonal issues. The fourth type of learner,
accommodators, have the ability to learn from primarily “hands-on” experience. They enjoy new, challenging experiences and tend to act on “gut” feelings rather than logical analysis. Armstrong proposed a slightly different theory that suggests that a person’s form of intelligence will influence the way he or she learns. The 8 types of intelligence/learning styles he identified are bodily, visual, verbal, musical, naturalistic, interpersonal, intrapersonal, and logical.

Although the receiver is at the end of the communication model, he or she needs to be considered first. The more the medical communicator understands the receiver and develops a communication package that reflects that understanding, the greater the likelihood that the receiver will be able to read, understand, and act on the information. Because individuals learn and process information differently, the communication message should be offered in multiple formats and channels to ensure effectiveness. Doyle and Ward further caution health and medical communicators and health professionals not to make the mistake of ignoring culture-specific differences or perpetuating stereotypes by applying cultural labels. A balanced approach, using multiple strategies, is best for effective health communication.

SUMMARY
Medical communicators play a vital role in the promotion of health and the development of healthy behaviors. Effective health communication can be the difference between an individual merely hearing or reading information and actually acting on it. Information alone does not change behavior. There must be active participation in the communication process by the receiver. The receiver must be able to read, understand, and act on the information provided. As George Bernard Shaw said, “The main problem with communication is the assumption that it has occurred.” Our Action Guide for Health Communication was designed to give medical communicators a practical way to ensure that communication has truly occurred and that the ultimate goal of health literacy—to promote greater health independence and empowerment among the individuals and communities—has been reached.

Author disclosure: The authors note that they have no commercial associations that may pose a conflict of interest in relation to this article.

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Since the passage of the 2,400-page Affordable Care Act (ACA or health care reform), health care providers, institutions, and patients have devoted significant time to figuring out what this bill actually means.

The bill and reconciliation package use legal jargon, and much of it consists of amendments to existing provisions of the Internal Revenue Code of the Public Health Service Act, the Social Security Act, the False Claims Act, the Employee Retirement Income Security Act, the Indian Health Care Improvement Act, and several provisions in the US Criminal Code. Many ACA provisions are unreadable unless one reads them side-by-side with these statutes. Implementation of this law will take time. Unlike previous reform bills, such as Medicare Part D, there are no conference committee notes to work from, as there was no conference.

According to a Rutgers study by Stuart Shapiro, the mean time for completing a regulation from start to finish is 831 days, or about 2 years and 4 months. Since this piece of legislation is immensely complicated, many anticipate that timing for parts of the law may take even longer.

EFFECTS ON HEALTH CARE SYSTEM

Overall, the effect of ACA on many aspects of the US health care system could be seismic. The law moves more than 30 million Americans—the population of Canada—from the uninsured category to insured. This is 30 million more Americans who will be seeking treatment from a limited pool of health care providers.

The marked increase in covered lives and additional patients could result in physicians having less time for outside activities—including research, consulting, volunteer work, and continuing medical education (CME). With less time for outside activities such as research and writing, physicians are likely to rely more heavily on medical communicators. In addition, physicians caring for so many extra patients are likely to have significantly increased and different educational needs. This means that physicians will need to learn about more issues in greater depth. Nurse practitioners and physician assistants will initially handle many of the new patients, as there is a severe shortage of primary care physicians and the bill did not increase the number of residency slots.

Another effect on the health care system will be the $1.1 billion provided in the stimulus package that passed in January 2009 to review the differences between therapies, procedures, and medical practices, also known as comparative effectiveness. One provision in the ACA (40+ pages) is devoted to setting up a congressionally chartered nonprofit, nongovernmental agency, called the Patient-Centered Outcomes Research Institute, which will be overseen by an appointed multistakeholder Board of Governors. Outside expert panels will provide assistance.

The Institute has the responsibility of identifying research priorities and conducting research that compares the clinical effectiveness of various medical treatments. Although the studies produced by this Institute will be included in clinical practice guidelines, insurance companies may not construe the findings of the Institute as mandates, guidelines, or recommendations for insurance payment or guidance for coverage or treatment.

The creation of this Institute does, however, have the potential to affect the work of medical communicators because it may add a new source for writers to begin consulting when they are developing materials for CME or other research-related work. Since comparative effectiveness researchers conduct systematic reviews on all the existing evidence for a particular treatment, these studies may generate new evidence of effectiveness or comparative effectiveness of a test, treatment, procedure, or health care service that a medical writer previously may not have considered. As a result, instead of focusing on specific drugs or treatments for a particular disease or condition, medical writers may have to begin considering the effectiveness, costs, benefits, and harms of different treatment options. This shift may result in medical writers needing to recognize...
gaps between existing medical research and the needs of clinical practice, to identify new and emerging clinical interventions, and to review and synthesize current medical research.

**BIOSIMILARs**

Health care reform includes a provision for an approval pathway and 12 years of exclusivity for biosimilars—drugs that are similar, but not identical, to a biologic. Under the Biologics Price Competition and Innovation Act of 2009, a component of the ACA, a drug is a “biosimilar” if it is “highly similar” to the reference biologic “notwithstanding minor differences in clinically inactive components” and if there are no “clinically meaningful differences” between the products in terms of the safety, purity, and potency. A biosimilar is considered “interchangeable” with the reference biologic if it meets certain additional conditions: it can be expected to produce the same clinical result as the reference product in any given patient, it may be substituted for the reference product without the intervention of the prescriber, and the risk of safety or diminished efficacy of alternating or switching between the biosimilar and reference products is not greater than the risk of using the reference product with no switch.

In the new approval pathway, there are 2 options: an abbreviated biologic product application (aBPA) for “highly similar” products and a license application for biosimilars thought to be interchangeable. Both applications require analytical, preclinical, and clinical data showing biosimilarity. The US Food and Drug Administration (FDA) will have discretion to waive any data requirements that the agency determines are “unnecessary.”

The requirement for clinical trials ensures that sponsors of biosimilars will have to do extensive testing prior to approval. Since the biosimilars manufacturer does not have access to the original cell lines or the exact specifications of the fermentation process, creating biosimilars will be difficult. We have seen with the current biologic products that even small changes in manufacturing such as adjustments in vat size or length of tubing can cause undesirable changes in the efficacy and safety of biologic products. This creates a significant barrier to entry for these products, so it is likely that there will be only a few biologic company competitors versus 40 or 50 for chemical-based pharmaceuticals—significantly limiting the downward price competition.

In addition, the new law requires that all biosimilar products be subject to risk evaluation and mitigation strategies (REMS). Adoption of REMS for all new products will require intensive medical writing and education programs.

**PHYSICIAN PAYMENT SUNSHINE**

The Physician Payment Sunshine provision included in the health care reform package creates new requirements for drug, biologic, and medical device companies to document and report all payments and “transfers of value” to physicians and teaching hospitals.

This provision begins in 2012, with the first report by manufacturers due March 31, 2013. The provision requires reporting of a minimum value of $10/payment or $100/year. The provision also requires reporting by companies of direct payments of honoraria, food, travel, and compensation for serving as a faculty member. Although it is unclear whether other information will be required, many of these answers will be forthcoming as agencies finalize the regulations.

This provision may affect medical writers who are MDs and still practicing medicine and working directly for industry. As a result, reporting of all payments for writing services is possible.

**1099 TAX FORMS**

The legislation mandates that beginning in 2012, all companies will have to issue 1099 tax forms not just to contract workers but to any individual or corporation from which they buy more than $600 in goods or services in a tax year. Essentially this section expands the scope of 1099s by using them to track payments not only for services but also for tangible goods. The expanded scope of the 1099 will affect many medical communicators because it will force businesses to issue millions of new tax documents each year. Freelance medical communicators will have to issue a 1099 to any commercial entity or company (ie, office supply stores) if they purchase more than $600 in goods or services. For example, if a freelance buys a new iMac from the Apple Store, they will need to send a 1099 to Apple. Moreover, this section has the potential of creating a significant administrative burden for small companies without large in-house accounting staffs to handle all of the additional paperwork. Additionally, small businesses and independent contractors must overcome the difficulty of gathering the names and taxpayer identification numbers for every payee and vendor they do business with.

**INDEPENDENT PAYMENT ADVISORY BOARD**

Starting in 2015, the President will appoint a 15-member Independent Payment Advisory Board (IPAB), which will have the authority to develop proposals to cut costs in the Medicare program. The intent of creating IPAB within the health care legislation is to reduce the per capita rate of growth in Medicare spending. In other words, cut and reduce payments in the Medicare program to suppliers (industry) and health care providers (doctors, nurses, etc). IPAB will have the ability to make such cuts because, unlike other boards or commissions that address health care costs, “IPAB’s proposals will become law if Congress fails to enact alternative cost saving proposals that would save at least as much as the IPAB proposals.” IPAB is required to submit proposals to the President and Congress, and to consult with the Department of Health and Humans Services (HHS).
and MedPAC when the Actuary of the Centers for Medicare and Medicaid Services determines that Medicare expenditures will exceed a target rate of growth. This rate of growth is set out in the health care law. These proposals have a number of requirements to meet and may not include certain things such as rationing health care or raising revenues. IPAB will also be required to submit annual reports to Congress on various health care system issues. A 10-person Advisory Committee appointed by the Comptroller General will advise IPAB.

Hospitals, which represent close to one third of total health care expenditure, are exempt from cuts until 2020. By exempting hospitals, the board will cause significant downward spending pressure on all other spending, including Medicare Part D drug spending. The creation of IPAB will also place pressure on Medicare providers and suppliers who provide high-volume, high-cost services.

**SUMMARY**

As agencies begin working out the regulations to implement various sections of the ACA, clearly the devil will be in the details. Nevertheless, agencies must post their proposals for comment and take the comments of industry into account before adopting final rules. It is important that all health care providers and medical communicators stay engaged during the implementation process and make their presence known at the US Department of Health and Human Services. Regardless of where you stood prior to the passage of these reforms, they will affect your profession.

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→ Read Tom's blog, Policy and Medicine, at www.policymed.com.

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ABBREVIATIONS

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<thead>
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<tr>
<td>AAAS</td>
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<td>AMA</td>
<td>American Medical Association</td>
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<td>AMWA</td>
<td>American Medical Writers Association</td>
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<tr>
<td>BELS</td>
<td>Board of Editors in the Life Sciences</td>
</tr>
<tr>
<td>CBC</td>
<td>Certified Business Coach</td>
</tr>
<tr>
<td>DO</td>
<td>Doctor of Osteopathic Medicine</td>
</tr>
<tr>
<td>ELS</td>
<td>Editor in the Life Sciences</td>
</tr>
<tr>
<td>MA</td>
<td>Master of Art</td>
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<tr>
<td>MS</td>
<td>Master of Science</td>
</tr>
<tr>
<td>MD</td>
<td>Doctor of Medicine</td>
</tr>
<tr>
<td>MVMEA</td>
<td>Mississippi Valley Medical Editors’ Association</td>
</tr>
<tr>
<td>PharmD</td>
<td>Doctor of Pharmacy</td>
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<tr>
<td>PhD</td>
<td>Doctor of Philosophy</td>
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REFERENCES


1940

On September 25, Harold Swanberg, MD, brought together a group of six physicians who were interested in learning more about medical writing, which led to the formation of the Mississippi Valley Medical Editors’ Association (MVMEA). This gathering took place in Rock Island, Illinois.

1946

The Mississippi Valley Medical Journal was made AMWA’s official journal.

1947

AMWA’s official journal.

1950

AMWA’s official journal.

1951

On September 34, the association was incorporated in Illinois as a not-for-profit corporation.

1952

To help motivate AMWA members to achieve greater accomplishments, the Constitution was also amended in 1955, establishing Fellowships. The first Fellowships were granted in 1952.

1954

The association became an affiliated society of the American Association for the Advancement of Science (AAAS), established in 1848—the parent organization of all the scientific organizations in the United States.

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The association became an affiliated society of the American Association for the Advancement of Science (AAAS), established in 1848—the parent organization of all the scientific organizations in the United States.

1956

The AMWA Bulletin was established.

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Bylaws were added to the AMWA Constitution.

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2009

Bylaws were added to the AMWA Constitution.

2010

Bylaws were added to the AMWA Constitution.
**PRESIDENTS**

1975
Arnold Melnick, DO
First person with a doctor of osteopathic medicine (DO) degree to become president

1976
Jerry McKee
First person who did not hold a doctoral degree to become president

1978
Virginia T. Eichelmaier
First woman to become president

1979
Robert F. Orser

1980
Byron T. Scott, PhD

1981
Louis G. Battell

1982
Theodore Berland

1983
Cathryn D. Evans

1984
Donald Radcliffe

1985
Martha M. Tucker, PhD

1986
Judith Linn

1987
C. Kelley Williams

1988
Maxim J. Loji, PhD

1989
Patricia L. Curnett, PhD

1990
Howard M. Smith

1991
Pat Robis

1992
Elizabeth L. Smith

1993
Betty J.B. Cohen, PhD

1994
Michael James Yoon

1995
Phyllis Minick

1996
Joel H. Tso

1997
John B. Ferguson

1998
Art Gertel

1999
Barbara C. Good, PhD

2000
MaryAnn Feote, PhD

2001
Lynn M. Alperin

2002
Heleen E. Hodgson, PhD

2003
Marianne Malia, ELS
First ELS to become president

2004
Fio Witte, MA, ELS

2005
Dominic De Bellis, PhD

2006
Sue Hudson

2007
Cindy W. Hamilton

2008
PharmD, ELS
First person with a doctor of pharmacy (PharmD) degree to become president

2009
Thomas P. Gugney, MS, ELS

2010
Betty J.B. Cohen, PhD

1954
Eric W. Martin Memorial Award established by Dr. Martin’s widow. Gregory T. Freherr, first recipient. Honors excellence in medical writing for articles written by AMWA members.

1955
In 1965, the first chapter of the American Medical Writers Association (AMWA) was formed. The first issue of the AMWA Journal was published that fall.

1958
The AMWA News, a tabloid-sized newsletter, was introduced in response to requests from members for a quick, organization-wide reporting on the annual conference.

1961
Listserve functionality was added to the AMWA Web site.

1963
In 2003, AMWA issued its Position Statement on the Contribution of Medical Writers to Scientific Publications in response to the ongoing controversy over ghostwriting.

1964
In April, The AMWA Bulletin Board was added to the Web site to provide members a forum for expressing their opinions and sharing their ideas.

1965
In October 2009, the AMWA History Project and Written Memories initiative were both introduced in an effort to gather information from AMWA’s members to ensure that important elements of their institutional history and memory were not lost.

**EVENTS**

1975
35th Annual Meeting
Philadelphia, Pennsylvania

1976
36th Annual Meeting
Detroit, Michigan

1977
37th Annual Meeting
New York, New York

1978
38th Annual Meeting
San Francisco, California

1979
39th Annual Conference
Kansas City, Missouri

1980
40th Annual Conference
Atlanta, Georgia

1981
41st Annual Conference
Toronto, Ontario, Canada

1982
42nd Annual Conference
Los Angeles, California

1983
43rd Annual Conference
Philadelphia, Pennsylvania

1984
44th Annual Conference
San Antonio, Texas

1985
45th Annual Conference
Montreal, Quebec, Canada

1986
46th Annual Conference
San Francisco, California

1987
47th Annual Conference
Chicago, Illinois

1988
48th Annual Conference
Philadelphia, Pennsylvania

1989
49th Annual Conference
Boston, Massachusetts

1990
50th Annual Conference
Los Angeles, California

1991
51st Annual Conference
Toronto, Ontario, Canada

1992
52nd Annual Conference
Houston, Texas

1993
53rd Annual Conference
Atlanta, Georgia

1994
54th Annual Conference
Phoenix, Arizona

1995
55th Annual Conference
Baltimore, Maryland

1996
56th Annual Conference
Chicago, Illinois

1997
57th Annual Conference
Boston, Massachusetts

1998
58th Annual Conference
Vancouver, British Columbia, Canada

1999
59th Annual Conference
Philadelphia, Pennsylvania

2000
60th Annual Conference
Miami, Florida

2001
61st Annual Conference
Norfolk, Virginia

2002
62nd Annual Conference
St. Louis, Missouri

2003
63rd Annual Conference
San Diego, California

2004
64th Annual Conference
St. Louis, Missouri

2005
65th Annual Conference
Pittsburgh, Pennsylvania

2006
66th Annual Conference
Albuquerque, New Mexico

2007
67th Annual Conference
Atlanta, Georgia

2008
68th Annual Conference
Dallas, Texas

2009
69th Annual Conference
Milwaukee, Wisconsin

2010
70th Annual Conference
Chicago, Illinois

Until the 1970s, AMWA’s annual meetings, for the most part, consisted of formal lectures and panel discussions. Only a few educational workshops were offered. In 1979, the AMWA Core Curriculum was established and was presented for the first time at that year’s annual conference. The Certificate program was introduced in conjunction with the Core Curriculum, providing a framework for educational experience and opportunities for professional development as a medical communicator.

In December, the association launched its first Web site.

In April, The AMWA Bulletin Board was added to the Web site to provide members a forum for expressing their opinions and sharing their ideas.

**AMWA published its first textbook, Biomedical Communication: Selected AMWA Workshops, which presented chapters written by 25 workshop leaders.**

**AMWA Code of Ethics added to membership application and renewal forms.**

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Professional medical writing support makes it somewhat more likely that the published report of a randomized controlled trial complies with the CONSORT guidelines, according to European medical writer Adam Jacobs (http://dianthus.co.uk/wp-content/uploads/2010/09/CONSORT-paper.pdf). He asked 2 colleagues, blind to the purpose of his study, to abstract data from 241 papers published in *Current Medical Research and Opinion* between October 2004 and August 2009. Altogether, 63% of those papers acknowledged the assistance of a medical writer, 29% did not, and in 8% acknowledgement was unclear. Papers that acknowledged a medical writer complied with slightly more CONSORT items than those that did not acknowledge a writer (difference between groups, 0.75 items completed; 95% confidence interval, 0.07 to 1.43; P = .03). As Jacobs recognizes, the practical significance of this small difference is unknown, and medical writers may have been involved in more papers than was apparent. (For information about the CONSORT guidelines, see www.consort-statement.org.)

Want to win $2000? That’s the prize for the new AMWA Award for Best Published Research, developed to encourage AMWA members to investigate the value added by medical writers and editors (such as what Adam Jacobs did). The research must be published in a peer-reviewed journal indexed by PubMed. For more information, go to www.amwa.org and click Programs>Awards>Competitive Awards.

ResearchRaven.com (www.ResearchRaven.com) is a new database of medical conferences, calls for conference papers, and calls for journal papers. It can be searched by keyword or by dozens of medical subject headings, with e-mail notifications and RSS feeds available. A fun extra feature, Leman’s Lexicon, is an engagingly written glossary of cutting-edge terms in science and medicine. A sister site, www.ScanGrants.com lists grants, scholarships, fellowships, prizes for scientific achievement or distinguished service, travel awards to professional meetings, and abstract, essay, and poster awards. Because information about federal and state funding is readily available elsewhere, most of the funding sources included are private foundations, corporations, businesses, and not-for-profit organizations.

A Web portal for searching multiple clinical trial registries is available at http://ifpma.org/clinicaltrials. Developed by the International Federation of Pharmaceutical Manufacturers & Associations, it’s searchable by disease, drug, and geographic location, in 5 languages. Boolean searches are supported, and users can request e-mail alerts of new trials. Most information comes from pharmaceutical company Web sites. Note that the World Health Organization maintains a similar portal that searches government-run clinical trial registries, including those in several developing countries (www.who.int/ictrp/search/en).

ExpertMapper.com (www.ExpertMapper.com) is a slick tool for finding key opinion leaders or interview sources—or the best physician for a family member. It’s searchable geographically and by the name of a disease, drug, procedure, or any other PubMed search term. Experts are ranked by the quality and quantity of their publications, and it’s possible to rank experts within single institutions. (Tip of the nib to Ryan Woodrow.)

Industry is increasingly relying on foreign clinical trials to test drugs that will be used in the United States, according to the US Dept. of Health and Human Services Office of the Inspector General (http://oig.hhs.gov/oei/reports/oie-01-08-00510.pdf). It reviewed marketing applications for 106 drugs and 15 biologics that the US Food and Drug Administration (FDA) approved in fiscal year 2008 (representing 193 completed clinical trials). Eighty percent of the applications contained data from foreign trials, and more than half of trial participants and sites were located outside the United States. The OIG also found that the percentage of foreign investigators conducting clinical trials under Investigational New Drug Applications has more than doubled over the past decade. The FDA told OIG the trend is likely to continue, citing Western and Eastern Europe, Central and South America, and China and India as regions in which sponsors are conducting more clinical trials.
Writing in Plain Language: A Quick Guide from Start to Finish

By Helen Osborne, MEd, OTR/L
President, Health Literacy Consulting, Natick, MA

Medical writers often get requests to "translate" complex health information into patient-friendly documents. This translation is sometimes referred to as converting to plain language—using words, terms, and concepts that most readers in the intended audience can relate to, understand, and use (see box on next page). The purpose of this article is to answer the most common questions about writing in plain language: how to start the project, how to write in plain language, and how to know when you’ve written well.

How do I start a plain language project?
In my view, plain language projects are best done by a team. Members of the team should include the following.

• A writer who is skilled in plain language and is an advocate for the learning needs of the intended readers.

• One or more content experts who not only have subject-matter mastery, but also can help differentiate between “need to know” (essential behaviors and actions) and “nice to know” (background facts and figures) information.

• Readers representing the intended audience in terms of their literacy, language, and interest in or familiarity with the subject. Readers can offer invaluable insight about whether documents are understandable, engaging, and helpful.

The first step is to determine as much as you can about the reading audience in terms of their education, literacy, language, culture, age, disability, and interest in or familiarity with the subject. If the project request is for a document intended primarily for readers with low literacy skills, the use of plain language alone may not be sufficient. Nonprint alternatives, such as pictures, audio, or video, can enhance comprehension of the text.

The next step is to determine the goals of the project. The question to ask is, "As a result of readers reading this document, what do you hope or expect they will know, do, and feel?" Project managers (perhaps your employer or an outside client) can usually easily describe what they want readers to know, but they often have more difficulty describing what they think readers should do and feel after reading a document. All 3 elements are essential in determining the document’s content, tone, and format.

How do I write in plain language?
Writing in plain language is both an art (requiring common sense) and a science (with rules). It is much more than simply using common words and short sentences. The following are some plain language guidelines and suggestions to consider.

• Organization. Try to limit content to 3 to 5 “need-to-know” skills or behaviors rather than large amounts of “nice-to-know” supporting facts. It is fairly easy to differentiate between these after the initial conversation about project goals. Next, organize content from the reader’s perspective. The best organization might be from first to last (such as for self-care instructions), most common to least likely (for side effects, perhaps), or safest to most risky (as for decision-making).

• Words. Whenever possible, use common 1- or 2-syllable words such as “heart attack” rather than multisyllabic mouthfuls like “myocardial infarction.” But when technical or complex terms are needed, clearly explain what they mean. For instance, you could define chemotherapy as “treatment with drugs that kill cancer cells.” Be consistent with terms; for instance, if you write the word “surgery,” always use that word rather than “surgeries,” “surgical procedure,” “operation,” or “procedure.”

• Sentences. Use simple, short sentences (no more than about 15 words) that express a single idea. At the same time, avoid choppy sentences; even struggling readers appreciate text that is both interesting and engaging. By using the active voice (ie, identifying who is doing the action), you can write more concisely and help engage...
the reader with direct statements. For example, instead of telling the reader, “The bandage should be changed in the morning and in the evening,” tell the reader, “Change your bandage in the morning and in the evening.” Lastly, even though health information is often qualified and may change, avoid conditional sentences (“if... then”) as much as possible. These sentences are much more difficult for most readers to comprehend.

- **Numbers.** Some readers find quantitative information more difficult to understand than well-written prose. Comprehension may be especially poor when readers are presented with numbers greater than 100 and numbers less than 1. If quantitative information is needed, consider other ways of expressing it, such as images, stories, or metaphors.

- **Tone.** Write directly to readers, using words like “you” and “your” rather than “the patient.” Frame information in positive, yet honest, ways. For example, don’t refer to a medical preparation as “a pleasantly flavored drink” when it really tastes like chalk. Provide context for new concepts and frame information within the intended reader’s culture, logic, and experience. Do not assume that readers correctly know what to do and be specific in instructions. For instance, write “Walk for 10 minutes 3 times each day” rather than “Exercise moderately.”

- **Format and layout.** Use headers to identify key topics. Headers act like road signs directing readers where to look. Although bulleted lists can be helpful, limit each to just a few. To me, this tends to be about 6-8 items. Combine related items when lists are long. For instance, instead of creating one long list about types of fruit, break the list down into smaller labeled groups, such as “citrus fruit” or “melons.” Design is also important. Make sure there is “adequate” white space (about a 50/50 mix of print and blank space) so pages look inviting to read. Use at least a 12-point size type along with a combination of upper- and lower-case letters. Align the text flush left but leave the right margin ragged. Use boldface sparingly and avoid using underline; if overdone, these formats lose their effectiveness.

- **Graphics and interaction.** Pictographs are simple line drawings that show ideas and actions. They reinforce concepts conveyed in words. Place pictographs alongside text to help improve understanding. Effective documents invite readers to interact with the text, for example, use checklists or leave spaces for readers to write questions. At the end of the document, include ways for readers to learn more. Offer at least 1 or 2 nonprint options, such as a phone number to call or a place to go.

**How can I tell if I’ve written well?**

As noted earlier, reading grade level assessment tools are not intended as guides for good writing. Most of these tools look at only a few factors that affect reader understanding; namely, the number of syllables in a word and the number of words in a sentence. Comprehension is a much more complex issue.

If your client or employer insists on determining the document’s reading grade level, consider whether the document’s formatting as well as the language could be simplified. One option is to delete headers, bullets, or punctuation that could skew the results of a readability tool. (Before doing this, be sure to save the original document in a separate file to avoid losing the formatted version.)

Readability software is better than a free tool offered within a word processing program. One software program, **Readability Studio** (Oleander Software, Ltd, Vandalia, OH [available only for PC]), provides a list of all multisyllabic words used. You can then review the list and decide which words to keep, change, or delete. A somewhat comparable software program for the Mac is **Readability Calculations** (Micro Power & Light Co, Dallas, TX).

Checklists can be even more effective ways to assess writing. A checklist enables you to look at multiple aspects of a document, both to determine its readability and to pinpoint areas to be improved. The Suitability of Assessment of Materials (SAM) is a well-regarded checklist created by Doak et al. It considers variables of content, literacy demand, graphics, layout and typography, learning stimulation and motivation, and cultural appropriateness.

The gold standard for determining readability is feedback from readers who represent the target audience. Your readers are the true experts about what is understandable, useful, and relevant for them. Readers can provide feedback formally, as in focus groups, or informally, as in one-on-one discussions. Be sure to budget sufficient time to get reader feedback on an early draft. Then make any needed changes and ask for feedback again. This second round is to find out (and fix) any new problems inadvertently introduced along the way.
Plain language writing takes skill, experience, and a dose of common sense. But your effort is certainly worthwhile, as everyone benefits when health information is clearly communicated.

References

Another Practical Matters article, “Successful Navigation Across Cultures in Medical Writing,” is available as an online exclusive on www.amwa.org.

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Master the necessary knowledge and skills of excellent medical writers and editors.

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- Organize and write well-structured medical articles
- Evaluate and report statistics correctly
- Learn to design and edit medical tables and graphs
- Track medical nomenclature through search
- Network with others in the profession

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May 18-27, 2011, at the MBL, Woods Hole, Massachusetts

APPLICATION DEADLINE: March 1, 2011
Learn more and apply: mbl.edu/sjp

Travel to the MBL in the scientific village of Woods Hole for a hands-on course in biomedical science created especially for journalists.

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Courses start soon. Enroll today.
grahamschool.uchicago.edu/medicalwritingandediting/amwa

For more information, please contact Amber Neff at:
773/702-1682
aneff@uchicago.edu

The UNIVERSITY of CHICAGO
Graham School of General Studies
An AMWA member asked our Freelance Forum panel to list the 3 best and worst aspects of being a freelance medical communicator. Their answers are surprisingly similar.

Top 3 advantages:
1. Control (work life, personal life, income, destiny)
2. Freedom (to work when I want, where I want, for whom I want, on what I want)
3. Responsibility (if I don't do it, it doesn't get done; if it gets done wrong, I did it)

Top 3 disadvantages:
1. If you don't work you don't get paid.
2. If you don't bill you don't get paid.
3. If you don't collect you don't get paid.

—Brian Bass

Top 3 advantages:
1. I can set my own work schedule.
2. I learn something new from each project I work on.
3. I get to decide how much my work is worth.

Top 3 disadvantages:
1. Even when I close the office door, the work is always there—haunting me.
2. More often than not, the workload is either “feast” or “famine.”
3. I don't have a secretary to take care of my filing, billing, etc.

—Donna Miceli

Top 3 advantages:
1. Autonomy/freedom, both in terms of schedule and projects
2. Ongoing education and chance to interact with scientists and doctors
3. Great income while working from home

Top 3 disadvantages:
1. Lonely/isolating
2. Constant deadlines
3. Can be tedious and dry

—Emma Hitt

Top 3 advantages:
1. Setting flexible working hours
2. Having control over the projects I take on (the freedom to say “No!”)
3. Saving a bundle on gas and drycleaning

Top 3 disadvantages:
1. “Feast or famine” work schedule
2. Irregular payments
3. No one to pay my way to AMWA meetings (besides myself)

—Sherri Bowen

Top 3 advantages:
1. Flexibility
2. Independence
3. The illusion of control

Top 3 disadvantages:
1. Isolation
2. Insecurity
3. Stress from multitasking and sensory overload

—Cathryn Evans

Top 3 advantages:
1. I exclude authors with whom I don’t want to work/choose projects that interest me most/work gratis for young scientists still trying to get funded.
2. I can apply my long experience to a range of topics and projects, which avoids boredom.
3. I know enough to edit my grandchildren’s essays and applications.

Top 3 disadvantages:
1. Time spent billing and record keeping is unpleasant and unpaid. Collecting money from new clients is sometimes a problem.
2. Working onsite to supplement full-time staff can be difficult because of unfamiliarity with the premises, resources and permanent staff, who can be unhelpful and/or jealous.
3. No information technology staff is immediately available to fix computer problems, supply new programs, or demonstrate how they work.

—Phyllis Minick
Top 3 advantages:
1. The ability to work in an office environment set to your preferences. I think this makes me very productive. I enjoy working in quiet with minimal interruptions to keep the creative juices flowing.

2. The feeling of never being held back in the direction you wish to grow. In my opinion, owning your own business provides many more growth opportunities than corporate life and with that comes much more responsibility (think Spiderman!), and I greatly enjoy the challenge and problem-solving.

3. The choice to rearrange your schedule somewhat to tend to personal goals. But you still have to work the hours, so this is a double-edged sword.

Top 3 disadvantages:
1. No peer interaction or feedback. Freelance can feel like working in a vacuum. To overcome this I meet with several freelances once a month over lunch. I also attend regional AMWA meetings and network with my medical writer friends.

2. Nonstandard pay and pay periods. Cash flow is a bit skimpy this month, but next month I’ll take in 3 times what I need. Have a cash reserve! Always pay your taxes!

3. Being the scapegoat, bottom-of-the-barrel, last thought of, faceless, nameless, nebulous entity on the end of an e-mail or phone line. So, as Don Miguel Ruiz (The Four Agreements) encourages, “Don’t take anything personally.”

—Barbara Rinehart

The advantages of being freelance far outweigh the disadvantages. The most important advantage is that as a freelance you are in control of your own destiny. The projects that come in, the types of projects you take on, and the clients you work with are all under your control. Had a bad experience with one client? Do not work with them on other projects. Had an excellent relationship with another? Do everything in your power to strengthen and enhance that relationship. Once established, you will be able to pick and choose your projects and your clients.

The second advantage is flexibility. Within reason, as a freelance, you have the flexibility to work on projects at your own pace and on your own schedule. If you are a “night person,” you can work throughout the evening. If you want to take a 3-hour lunch and then work until 8:00 PM, you can. The only restriction is that you must complete each project in a timely fashion by adhering to all deadlines.

The third advantage is the ability to choose your own personal work environment and design it with your own preferences in mind. Most freelances I know work out of their own home. You can set up an office in a spare bedroom or a dedicated area of your home. Your workday wardrobe is what you are most comfortable wearing. You can take as many breaks as you like while working on a project, even rewarding yourself with an hour of gardening before lunch. You can play any type of music (or not) during the workday. Your desk can be fastidiously clean or messy. Who’s to know?

Yes, there are also disadvantages to freelancing. You are often isolated from face-to-face contact with clients and colleagues, and you must take on all responsibilities for your business (being writer, salesperson, accountant, office cleaner, etc) or pay someone else to do them. When business is slow, you must motivate yourself to look for work, and when clients are slow-paying, you must act as a collection agency!

I have a sign on my desk that says: Any job that can bring frustration, challenge, stimulation, satisfaction, and misery, all at the same time, has to be the best job in the world. That sign, to me, sums up the freelance world!

—Elizabeth L. Smith

AMWA thanks everyone who participated in the recent AMWA membership survey (see a discussion of the results in an online exclusive at www.amwa.org), and congratulates the winners of the survey drawing.

Elizabeth Bowman
Empire State-Metro NY Chapter

Elizabeth Colston
Delaware Valley

Sarah Cutler
Southeast Chapter

Joan Johnson
Pacific Southwest Chapter

Thank You
It’s particularly important for editors to be conversant with the rules of Standard English syntax. This knowledge will enable you to decide what editorial changes are truly necessary and to explain the need for those changes to your authors. In the Service of Good Writing is a Journal series designed to show writers and editors how to use the mechanics of Standard English to improve clarity and style.

Dangling Participles

By Laurie Thomas, MA, ELS
Madison, NJ

Bad writers usually have no idea how bad their writing is. Thus, they are usually truly shocked at how heavily I have to edit their work to make it suitable for publication. They complain that I am arbitrary, heavy-handed, and mean. But then, something magical sometimes happens. I have the bad writer review the parts of speech and learn how to diagram a sentence. I teach him or her a few simple rules of syntax. Then, suddenly, the bad writer is transformed into a competent writer. I have seen this change occur within a matter of days. From that point onward, that person’s manuscripts would pass through my department virtually unscathed.

In the September issue, I wrote about one of the syntactical errors that are common in bad writing: the misplaced prepositional phrase.1 In this issue, I’ll talk about another serious problem: dangling participles.

What is a dangling participle?
A modifier is a word or phrase that changes the meaning of some other element in the sentence. A modifier is said to “dangle” if whatever it is supposed to modify is missing from the sentence. Participial phrases are the most common form of dangling modifier. Consider the following classic example.

Walking to school today, my book fell in the mud.

Obviously, the book was not walking. The participial phrase walking to school today does not modify any noun or pronoun that’s in the sentence. Thus, it is said to be dangling. To solve the grammatical problem, you can add the participle’s true subject, plus the appropriate auxiliary verb and a subordinating conjunction, to the introductory phrase.

While I was walking to school today, my book fell in the mud.

The sentence is now correct syntactically, but it doesn’t really tell the whole story. Here’s a solution that is more satisfying. Not only does it connect the participle to the correct noun, it explains why the book fell into the mud, and who was responsible.

While walking to school today, I accidentally dropped my book in the mud.

Of course, if you were editing this sentence, you would most likely need to query the author to find out how and why the book fell in the mud.

Dangling or simply misplaced?
If you start a sentence with a participial phrase, the phrase will sound as if it is modifying the subject, whether you want it to or not. Here is an example from an old edition of the American Medical Association Manual of Style.

Organized into 13 chapters, the reader of this book will benefit from an extensive appendix.

In this case, the modifier is not dangling but merely misplaced. AMA’s original solution was to make it clear that the book, rather than the reader, is organized into chapters; but why mention the reader at all? Here’s a better solution:

The book is organized into 13 chapters and has an extensive appendix.

Is the phrase dangling or absolute?
Many people have trouble telling a dangling or misplaced phrase from an absolute phrase. An absolute phrase doesn’t modify something within the sentence, or even something that’s missing from the sentence. It modifies the sentence as a whole, or perhaps an entire independent clause.

An absolute phrase normally contains a noun or pronoun but no true verb. It may contain adjectives, prepositional phrases, adverbs, and participles. Here’s a sentence that begins with an absolute phrase.

In the Service of Good Writing
His face white with rage, he looked at all of the changes the arbitrary, mean-spirited editor made in his flawless manuscript.

In contrast, here’s a sentence that begins with a participial phrase. Notice that it modifies the subject.

Blushing in embarrassment, he realized that the manuscript he submitted was riddled with errors in syntax.

In the following example, from the current edition of the AMA Manual of Style, the introductory phrase is a participial phrase and therefore won’t work as an absolute phrase.

Based on my experience, English majors make excellent copyeditors.

Based on my experience doesn’t qualify as an absolute phrase because it doesn’t contain a noun or pronoun, or even imply one. Thus, the phrase will sound as if it is modifying the subject; but it doesn’t make sense to say that English majors are “based on my experience.” If you want to modify the entire sentence, use a prepositional phrase, such as in the following example.

In my opinion, English majors make excellent copyeditors.

You could also make I the subject of the sentence.

I have found that English majors make excellent copyeditors.

Of course, the statement that English majors make excellent copyeditors is clearly an opinion. Why is it so important to emphasize whose opinion it is? How does that sentence fit in with the general flow of the argument?

Improving your skills

In my experience, English majors make excellent copyeditors only if they learned about grammar and syntax in school. Sadly, the teaching of those rules seems to have gone out of fashion.

I’ve asked many people why students are no longer taught how to diagram sentences. The explanations are idiotic. One is that you can make a good diagram even for some meaningless sentences, such as Colorless green ideas sleep furiously. Yet even though that sentence is nonsensical, it obeys the rules of syntax. In comparison, look at this example from Gertrude Stein: The change the dirt, not to change dirt means that there is no beefsteak and not to have that is no obstruction, it is so easy to exchange meaning, it is so easy to see the difference (Tender Buttons, as found on www.bartleby.com/140/2.html). The sentence is not only meaningless, it’s a syntactical nightmare. Stein wrote that way on purpose, to play with people’s heads. Unfortunately, many of our authors write like that accidentally.

If you want to avoid writing like that accidentally, review the basic rules of English syntax. When I was training copyeditors and proofreaders, I would have them review Capital Community College’s Guide to Grammar and Writing (http://grammar.ccc.commnet.edu/grammar/index.htm), including the presentation on how to diagram a sentence. Then I’d ask them to take all the quizzes. There are many other useful resources for learning grammar and syntax. You can use whatever you like, but I strongly recommend using something that includes quizzes.

References

1. Thomas L. In the service of good writing. AMWA J. 2010;25(3):122-123.
Your hands begin to sweat, butterflies appear in your stomach, and your mind goes blank. When you begin to speak, your tongue gets tied. Understanding the physiologic responses to public speaking anxiety, however, does little to help overcome it. What will help? Practice. But how do you get practice if you are no longer required to give oral presentations for a class?

Professional organizations like AMWA offer a variety of ways to help improve oral presentation skills as well as other job-related skills. Attendees of the AMWA 2010 annual conference had a plethora of educational workshops, open sessions, and breakfast roundtables from which to choose, and all of these were led by medical communicators on a volunteer basis. If you have limited experience giving oral presentations consider leading a breakfast roundtable or participating in an open session as a moderator or speaker. You may also want to consider leading a similar session at one of your AMWA chapter’s events. In addition to enhancing your presentation skills, this experience can provide unexpected benefits (see box at right). Steve Palmer, PhD, ELS, Senior Scientific Medical Writer at the Texas Heart Institute, has led several roundtable discussions, as well as an open session, on the use of Endnote. During his preparation for these sessions, he says, he “learned about some features that were very handy” and also found many of the latest version’s features to be so useful that he convinced his department to upgrade.

Jude Richard, ELS, has been leading workshops at the national AMWA conference since 2003. As part of his duties as a medical writer at Premier Research Group, he occasionally gives oral presentations and leads internal team calls. “Leading workshops has helped me improve the organization and pacing of those presentations and calls,” he says. A credit workshop, however, requires a greater time commitment and is more involved than a roundtable or open session because a curriculum must be developed and approved, and homework must be incorporated into the attendees’ education.

If you are not ready to give an oral presentation at an AMWA conference, offer to provide a brief oral summary of the AMWA annual conference for your employer or colleagues who could not attend the annual conference. This can provide a nonthreatening environment for you to practice public speaking.

Some companies, like Amgen, ask medical writers to give 5- to 10-minute summary presentations of meeting sessions they have attended. Julie Clark, Executive Director of Amgen’s Global Medical Writing Department, said that these presentations are designed to answer 2 questions: “What did you learn?” and “How will you use it?” These presentations are given at the monthly staff meeting after the conference and provide those who didn’t attend the meeting general information on emerging trends in medical writing, standard operating procedures, or key take-home messages about medical writing and best practices in the field. According to Clark, Amgen is committed to supporting its employees in taking leadership roles in professional medical writing organizations and encourages its employees to submit posters and to lead workshops at professional meetings.

Enhancing Oral Presentation Skills
By Kristina Wasson-Blader, PhD
KWB Health Communications, Inc., Edmond, OK

Benefits of Giving Oral Presentations
- Enhance your organizational and visual aid development skills
- Expand your professional network
- Improve your communication skills
- Learn new subject matter
- Mentor students

Expanding your professional network
Opportunities for freelances to improve their oral presentation skills exist as well. For example, Joanne McAndrews, PhD, has talked about her career in medical writing: in 2008, she talked at a graduate student-run symposium at Northwestern University and, more recently, she spoke at a postdoctoral society at Washington University. She says that she enjoys talking about medical writing and likes to help educate audiences about the controversies surrounding the acknowledgment of medical communicators’ contributions to manuscripts.

Besides AMWA, many other organizations exist that provide additional opportunities to improve oral commu-
At the time, her writing was directed toward communication skills for medical communicators. Some of these organizations are the American Society of Journalists and Authors (ASJA; www.asja.org), the International Society of Medical Publication Professionals (ISMPP; www.ISMPP.org), Council of Science Editors (CSE; www.councilscienceditors.org) the Alliance for Continuing Medical Education (ACME; www.acme-assn.org), Drug Information Association (DIA; www.diahome.org), and The International Publication Planning Association (TIPPA; www.publicationplanningassociation.org).

As their names imply, these organizations offer specialized support for distinct niches in medical communication. Tom Gegény, MS, ELS, Immediate Past President of AMWA, believes “these organizations are not redundant with AMWA’s mission,” but rather they help AMWA members to further develop and specialize their careers. And he should know; Gegény not only is a member of ISMPP but also has been a workshop leader for its annual conferences for the past 2 years. He has also spoken at past meetings for groups like CSE and the Association for Women in Science (AWIS). He used his experiences as an AMWA workshop leader and the daily skills he uses at UBC-Envision Group to develop and lead 2 ISMPP workshops: one on searching online databases and the other on publications gap analysis.

Many AMWA members also participate in other professional societies and find these additional interactions beneficial to their careers. As well as honing oral presentation skills, participation in the annual conferences of these professional societies can help expand a professional network by increasing visibility or providing the opportunity for an open dialogue about our profession.

Freelance Debra Gordon joined ASJA after joining AMWA. At the time, her writing was directed toward consumers and ASJA seemed to be a good fit. As the direction of her writing career is changing, her membership in ASJA is “becoming less and less relevant.” Yet, she still attends and also leads panel discussions at the ASJA annual meetings because, she said, “it provides increased visibility among my peers and you never know how that translates.” In addition, she “still enjoys talking and learning about writing” and has found the ASJA meetings helpful. Gordon also enjoys the “great support network” in the members of ASJA because they are all freelances.

While not an official member of CSE, freelance Hope Lafferty, AM, ELS, has presented at the last 2 CSE annual meetings. For her first CSE meeting, she sat on a panel discussion about author/editor relationships and for her second, she taught a module on generating tables. According to Lafferty, these presentation experiences build her training resume and present herself as a knowledgeable expert in the field to potential clients. In addition, these experiences have helped her to start the process of becoming an AMWA workshop leader. This year, she teamed up with Susan Aiello to co-lead the Proofreading workshop.

Making a “delicious punch”
While “AMWA represents the nuts and bolts of our profession” by allowing its members to explore a diversity of career options and providing a spectrum of continuing educational resources and opportunities to enhance professional skills to its members, explains Gegény, a plethora of other professional organizations in which you can participate exist, but finding the right mix is key. Lafferty describes her affiliations with CSE and AMWA like “comparing apples and oranges… [but] mix them together and you get a blended and delicious punch.” How will you make your punch?
Recently, I heard the founder of Google say on TV that just because information can be found on Google doesn’t make it true and not finding information on Google does not make it false. In other words, you cannot swear to the veracity of your electronic communications. This seems to ennoble my previous writings about the dangers of depending on electronic postings for medical authentication. The same warning applies to forwarded e-mail.

How do you know what to believe and what not to believe in a forwarded e-mail? And whether or not to forward it? It’s a very difficult task to make these decisions, but to remain sane, you must do so. I strongly believe the most important parts of any e-mail are who sent it to you and who originated it. Let me explain and give you a few examples.

Proclivity? Can you predict from the name of the sender what an e-mail will say? Many times you can, if you think about it. I have a good friend who e-mails me from time to time. As soon as I see his name, I know the forwarded message will be anti-Obama or pro-Republican, with an occasional religious taint. I am sure he receives other views in his e-mails but typical of most of us, he forwards only those whose philosophies he embraces. I understand and it does not influence our friendship but it is one-sided—and much of it is propaganda. So I am always prepared to “take it with a grain of salt.” Of course, I will not forward it, whatever side it takes.

I get a lot of e-mail from AMWA Past President “Red” Schiffrin. I know, when I see his name, that there is an overwhelming probability that it contains humor—sometimes intellectual, sometimes raucous, sometimes off-color—all varieties and all good—but when he writes about AMWA he is serious and sincere. I also know that his e-mail is not likely to be wild or biased; I can expect it to be intelligent and well-balanced. Know the source. Obviously, the old adage pertains: “Don’t believe everything you hear and only half of what you see.” It is especially true with forwarded e-mails. Some of the forwarded e-mails I have received have been forwarded 6 or 7 times. I am sure most of the recipients involved have no idea of the source, only that they agree (whether right or wrong). So when I receive a forwarded e-mail, I read it, then I look to see who sent it. I try to trace back as far as I can who the originator was. Sometimes it is an organization (and I check it out on Google) but more likely, it is an individual. Tracing an individual’s name on Google, I often find that he or she is an officer of a viewpoint-selling organization or an individual known to have a biased view (either side). Then I understand and I put the whole picture together. Thus, I do an analysis, even when the e-mail screams something I believe in. And I delete the e-mail, even when it is on my side.

We must take care not to dismiss such e-mails off-handedly with “Oh, that’s just propaganda.” (Yes, I slip occasionally and make the same mistake.) I remind you that propaganda is material used to convince the reader to be for or against something. For example, even a simple press release is propaganda in a way; it is used to convince readers of a good person, a good action, a good institution. Most propaganda (on either side of an issue) is apt to contain some truths, half-truths, and outright lies; you, the reader, are left to try to figure out which is which. Thus, it is not just good information (if you agree with it) or merely propaganda (if you do not).

Save time, save anger. I suggest you read forwarded e-mail, check to see who sent it, trace it back to its origin and, in almost all cases, delete it. What e-mails (forwarded or not) would I forward? Not many: innocent ones (Tom’s birthday reminder, a meeting notice, and the like) and obvious factual ones. I sometimes forward comedic ones, and only those few that are really funny. (I do wonder from time to time about the great variations in people’s senses of humor.) In effect, most forwarded e-mails are on my verboten list.

Let me alert you. When you finish reading this column, PLEASE DO NOT send it to 14 left-handed people—within 5 days—because if you do, they will all hate you. I have it from a reliable source.
Edie has been in a rehabilitation facility since having a stroke last year. She is thrilled to continue helping members solve their grammar and usage questions through her column, although without her valuable resources on hand, her answers are concise.

DEAR EDIE: In the following text, “A patient who experiences a dose limiting toxicity (DLT) will be withdrawn from the study. DLT is defined as any of the following: Absolute neutrophil count (ANC) <1500/mm³ (or white blood cell [WBC] count <3 x 10⁹/L...” is it better usage to change “who experiences” to “with” because an individual doesn’t directly experience such a change? We would have no need for clinical laboratory tests if individuals were able to perceive this type of change. If, to your way of thinking, both expressions are equally acceptable, please indicate this.

JODY SMITH
Philadelphia, PA

DEAR JODY: “With” is preferable, as whether or not the patient “experiences it” is subjective.

DEAR EDIE: Which is correct: “People smarter than I have written about this” or “People smarter than me have written about this.” I have asked many people about this and from the responses I’ve received, it seems that there is quite a bit of misunderstanding, so I look forward to your answer.

MARY GABB, MS
Champaign, IL

DEAR MARY: The correct usage is “I.” In this context, the “am” is understood, ie, “than I am.”

DEAR EDIE: I’m editing a paper for a pharmacology lab, and they have used “demographics” in the title of 2 tables, “Demographics of Payload Medications” and “Formulation Demographics.” The paper describes the evaluation of pharmaceuticals’ stability in space (as in outer), and the tables have headings such as “formulation type,” “number [of different pharmaceuticals] in each kit,” “number of unit doses tested,” and “physical parameters”—nothing to do with patients or subjects. I know that “demographics” usually refers to data pertaining to people (in keeping with the origin of the word). Can it correctly be used for pharmaceuticals? If not, can you suggest appropriate (and brief) alternative wording?

JANE M. KRAUHS, PHD, ELS(D)
Houston, TX

DEAR JANE: Since I do not have the advantage of reading the context, I do not understand use of the word “demographics,” which refers to subsets of people, as you point out. I would need the context to provide a useful answer.

DEAR EDIE: I’m editing a study manuscript in which the authors are looking at birefringence parameters as a measure of the health (for want of a better term) of the zona pellucida in human embryos. They want to abbreviate zona pellucida as ZP, which is fine if they are discussing a single entity. Some of the sentences, however, involve more than one (ie, zonae pellucidae). For English plurals, the solutions would be easy; for Latin, I’m stumped. Should I assume the reader will automatically “think plural” if necessary when they read the sentence? Do you have any suggestions?

MIMI (AKA MARY) WESSLING, PHD, ELS
Watsonville, CA

DEAR MIMI: “ZP” as an abbreviation for both zona pellucida and zonae pellucidae is acceptable, even within a single manuscript.

I thank Robert Hand and Kelly Flaherty for their invaluable help in composing this column.

Edie Schwager, a freelance writer, medical editor, and workshop teacher, lives in Philadelphia. She is the author of Medical English Usage and Abusage and of Better Vocabulary in 30 Minutes a Day. She welcomes queries and comments by e-mail, and in publishable form. Edie’s e-mail address, not surprisingly, is dearedie@verizon.net. Questions may also be sent to the Journal Editor at amwajournaleditor@editorialrx.com. Answers to Dear Edie questions will be published in the Journal but will not be sent in e-mails to correspondents.

To avoid back-and-forth, time-consuming messages, please include permission to publish along with the questions or comments. For verification, correspondents must provide all addresses, especially the city and state, of the correspondent or the affiliate.
In all, individuals recently facing a cancer diagnosis, as well as families of patients and health care providers interested in fine-tuning their bedside manner or delivery, would find this a credible and compassionate read.

—Elizabeth Yepez

Elizabeth is a senior managing editor at Informa Healthcare, New York, NY.

Intimate Partner Violence: A Health-based Perspective
Connie Mitchell and Deirdre Anglin, editors

The topic of intimate partner violence is disturbing, and solutions, both for individual victims and society, can prove elusive. Moreover, the prevalence of victimization in intimate relationships is higher than many laypeople and medical professionals realize. For these reasons, it is particularly important that a dispassionate, research-based summary of this topic is available for students and practitioners who will encounter this issue in their professional lives.

In this extremely informative compilation about intimate partner violence, Mitchell, who has written California’s clinical guidelines on domestic violence and developed a standardized curriculum for California health professionals, and Anglin, a clinician, researcher, and educator in emergency room medicine, together with more than 60 chapter authors, have provided a comprehensive text that focuses on how intimate partner violence is manifested, how it affects the physical and mental health of its victims, and what responses at the individual and societal level can be recommended. The perspectives covered include public health, health policy, law, prevention, detection, acute and chronic care for victims, and dealing with perpetrators of intimate partner violence. Research is incorporated throughout the book, both in summaries of existing study findings and delineation of areas where additional research would be beneficial. A comprehensive range of topics is covered, including prevalence, explanatory frameworks, economic impact, diagnosis, risk factors, comorbid conditions, treatment, prevention, and caring for care providers.
Despite having 36 chapters and many contributing authors, the book maintains a consistent tone while presenting the most salient findings from both research and professional practice. The text is readable and clearly written, with an emphasis on concise presentation of the full range of knowledge available on each chapter topic. Every chapter ends with a listing of implications for policy, practice, and research, followed by an extensive reference list of sources where additional detail can be sought.

The information in this book will be useful to practitioners in the fields of law enforcement, public policy, public health, trauma and emergency medicine, psychiatry, and chronic care medicine (including adolescent, obstetric, gynecologic, and geriatric specialties). Although the book’s emphasis is on summarizing all of the available research, sufficient practical information and illustrations are given to serve as a basic guide to practice and to inform understanding of perpetrators and victims for all of the professional disciplines that encounter and serve people who have been affected by intimate partner violence. For example, a series of clinical and forensic photographs showing characteristic injuries will be useful to those who need to identify clients who are probable victims of violence. In addition, several sample tools and guidelines are provided, including victim danger assessments, questionnaires for assessment of previous trauma, forensic medical report forms, and state statutes mandating reporting of domestic violence.

Overall, this is an impressively comprehensive and practically useful summary of a topic that is of great importance to medicine and society generally. The authors have accomplished the uncommon feat of marrying research and practice in a way that will assist practitioners and spur researchers to help fill gaps in knowledge and practice.

—Kathryn Wekselman, PhD, RN

Kathryn is a consultant in regulatory submissions and drug development at Kendle International in Cincinnati, OH.

**Category: Public or Health Care Consumers**

**Demystifying Psychiatry: A Resource for Patients and Families**

Charles F. Zorumski and Eugene Rubin

During my training in Scotland as a registered nurse in the early 1980s, I knew a psychiatrist who had been a neurosurgeon. I asked him why he switched specialties and he said that one day, he’d been guddling* around in someone’s brain when he realized he didn’t really know what he was doing—and neither did his colleagues. He reckoned that while psychiatry offered no more certainty than neurosurgery, at least the stakes were lower.

I’m fairly certain the authors of Demystifying Psychiatry would not agree with this assessment. Charles F. Zorumski and Eugene Rubin view psychiatry as a profoundly misunderstood discipline and lament the popular view—as Tom Cruise famously put it—that psychiatry is a “pseudoscience.” Eminent scholars at Washington University, St. Louis, MO, Zorumski and Rubin are on a mission to explain to the lay reader the evolution of psychiatry into a biologically oriented specialty that, while firmly operating within the medical model, has increasingly integrated social and psychological treatments into its clinical paradigm.

Though the history of psychiatry is somewhat tortured by a string of treatments that have been co-opted for abusive purposes (eg, lobotomy, or the use of antipsychotic agents in the criminal justice system) and dodgy diagnostic categories (homosexuality was only removed from the *Diagnostic and Statistical Manual of Mental Disorders* in 1973), the authors bypass such controversies and move straight to their principal focus: to lay out psychiatry as a valuable resource for a society with so much psychiatric disease. About a third of us suffers from mental illness at some point in our lives, and so, Zorumski and Rubin argue, it is important to know how such illness is going to be treated, by whom, and what the likely outcomes are.

*Demystifying Psychiatry* is a clearly organized book in 15 short chapters—with take-home messages and illustrative case studies—that support their mission. The early chapters describe psychiatric terms and offer a lexicon for patients and their caregivers. Chapter 3 tells us what psychiatric illness looks like and offers brief crib sheets of behavioral red flags, while chapter 4 describes what psychiatrists actually do, how they are trained, and the multidisciplinary context they work in. In later chapters dealing with diagnosis and treatment, the authors do a thorough job of picking through the ambivalences of modern psychiatry (there are still no definitive tests to support diagnoses) and provide an overview of available pharmacologic and nonpharmacologic treatments, as well as developments in neuroscience and their implications for new therapies.

Yet the authors don’t shy completely away from controversies (such as the role of industry in driving pharmaceutical therapies and the enduring role of electroconvulsive therapy) and are unambiguous about the important part that families and patients—all of us—play in recognizing and managing psychiatric disease.

Although neither for the faint of heart—psychiatric disease can have a devastating effect on patients and families—nor for those interested in a more critical history of psychiatry, *Demystifying Psychiatry* nonetheless provides an invaluable and accessible overview of psychiatric care for the lay reader. The authors are realistic about how complex and challenging diagnosis and treatment of psychiatric disease can be but optimistic about psychiatry’s capacity to offer good outcomes for patients through validated treatments and integrated, multidisciplinary care.

*Scottish term for catching trout by hand (ie, slippery and near impossible).*  

—Alexandra Howson, MA, PhD

Alexandra is a Seattle-based freelance medical writer who specializes in creating continuing medication education content.
For the past 2 years, a subcommittee of the AMWA Web & Internet Technology Department has been studying the strengths and weaknesses of the Freelance Directory. The committee spent many hours considering feedback from freelances, including 2 long threads from the Freelance Listserve (November 2008 and July 2009). We also conducted an online survey of freelances and prospective clients. We are hardly the first group to work on improving the directory, but we are the first to seek formal input from clients.

The AMWA members on the subcommittee were Peter Aitken, PhD; Brian Bass; Kate Casano, MHS; Alison Greenwood; Mary King, PhD, DABCC; Mary Royer, MS, ELS; Naomi Ruff, PhD, ELS; and me. Alison is an executive director of RPS, a contract research organization; the rest of us are long-time freelances. We began our work with different levels of concern about the directory and different opinions about how we ought to proceed. By the end, we were of one mind: improve the Freelance Directory in the ways that clients say it should be improved. This article reports their responses, which we have submitted to the Executive Committee for consideration.

The survey was live on SurveyMonkey from September 15 to October 9, 2009. It was mentioned once in the AMWA Update e-mail newsletter; 3 times each on the AMWA Editing-Writing, Freelance, and Pharma listserves; in an e-mail to 132 current and former Freelance Directory subscribers (companies that pay for access); and once on each of 32 LinkedIn groups representing freelances in medical communication and/or our prospective clients. Of the 466 respondents, 405 (87%) were freelances and 61 (13%) were clients.

Characteristics of the respondents and their companies
Of the 61 clients, 40 were current AMWA members, 2 were past members, 13 were never-members, and 6 did not answer the membership question. About one third of clients were at medical communication or medical education agencies; one third were at pharmaceutical, biotechnology, or medical device companies; 6 were at publishing companies; and the rest were at other types of commercial or nonprofit organizations. Twenty-seven clients had free access to the Freelance Directory through their AMWA membership, 4 were current subscribers to the directory, 2 were past subscribers, 18 were never-subscribers, 5 were unsure whether their companies subscribed, and 5 did not answer the question about access.

Clients named their top 3 hiring needs by choosing among prespecified types of documents and services. Altogether, 36 clients chose journal publications/congress presentations, 24 chose editing, 19 chose regulatory writing, 16 chose unaccredited educational materials for clinicians, and 13 chose writing for patients/the public. The other categories (accredited continuing medical education, advisory board reports and other internal corporate documents, conference coverage, copywriting, grant writing, project management, and sales representative training) were top needs of fewer than 10 clients.

What should the search options be?
The survey asked clients to rank the 4 types of information that are most important to them when they hire a freelance. The leading concern was experience with specific types of documents (Table 1).

Eleven clients wrote open-field comments about what they consider in hiring a freelance. Most often mentioned were relational skills: “team fit,” “flexibility,” “willingness to take feedback,” “personality,” “ability to work under pressure,” “works well with others,” “willingness to cooperate with the needs of the project.” Two clients prefer that the freelance be referred by a trusted colleague.

Cost and awareness of the Freelance Directory
Currently, nonmember clients who wish to search the directory pay $50 for a 3-month subscription, $75 for 6 months, or $135 for 12 months. There is a 1- or 2-day lag time while an AMWA staff member processes the payment, and some clients presumably experience additional delay while they wait to get spending authority from their employer. Unfortunately, when designing the survey, the committee did not think to ask whether lag time itself is a concern to clients, separate from cost.

The survey asked the 18 never-subscribers why they had never used the directory (they were able to choose more than 1 response). The most frequent response was, “I did..."
not know about it,” selected by 8 clients. Six clients selected “I have other, better ways of finding freelances” and 4 selected “It costs too much.”

The 18 never-subscribers and the 6 other clients who reported being nonmembers of AMWA were asked how they would respond if AMWA eliminated the access fee. Twelve clients said they would search the directory frequently (>4 times per year), 3 said they would search the directory occasionally (≤4 times per year), and 3 were unsure.

Conclusions
This input from clients can help freelances improve their ads. For example, although the directory is not searchable by years of experience or years of freelance experience, freelances can and should mention in their ads how much experience they have in both categories. Those with relatively little experience should remember that some clients prefer to approach newer freelances, and some will pay close to the rates a more experienced writer or editor can charge.

Another clear takeaway message is that clients care about our level of experience with different types of documents as well as our level of experience in various therapeutic areas. We need to stop what committee member Kate Casano calls the “keyword arms race,” overloading our ads with references to every therapeutic area we’ve worked in, no matter how superficial our understanding. Prospective clients want to know our areas of genuine expertise and what sets us apart from other writers and editors. They also want to be assured of our professionalism. What are you “flexible” about? Can you provide testimonials or the names of references who will vouch for your ability to work well with others?

The “Description” box in the Freelance Directory can hold more than 1 million characters—far more than the space allotted on a LinkedIn profile. There is room for you to provide specifics of your services, your formal education and continuing education, your participation in professional associations, and more. Don’t think of the directory as a place to buy a “listing.” Take advantage of its capabilities and write an engaging sales piece about yourself!

The Freelance Directory Subcommittee is grateful to Becky Phillips and Ronnie Streff of AMWA headquarters for participating on the committee and to AMWA leaders Tom Gegeny, MS, ELS; Norman Grossblatt, ELS(D); Cindy Hamilton, PharmD, ELS; and Sue Hudson for previous improvements to the directory. We also thank Megan Stephan, PhD, for putting our survey into SurveyMonkey; Tara Hun-Dorris, MMC, ELS, for help with analyzing the results; and Becky Nutall, RN, BSN, for help with publicizing the survey on LinkedIn.

**Table 1. 2009 AMWA Survey: Information Most Important to Clients When Hiring Freelances**

<table>
<thead>
<tr>
<th>Item</th>
<th>Response count (N = 51)a</th>
<th>No. (%) who ranked the item as:</th>
<th>Weighted average scoreb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience with specific types of documents</td>
<td>44</td>
<td>23 (52.3) 14 (31.8) 7 (15.9) 0 (0.0)</td>
<td>1.64</td>
</tr>
<tr>
<td>Years of freelance experience</td>
<td>11</td>
<td>5 (43.5) 1 (9.1) 3 (27.3) 2 (18.2)</td>
<td>2.18</td>
</tr>
<tr>
<td>Therapeutic area experience</td>
<td>42</td>
<td>10 (23.8) 15 (35.7) 13 (31.0) 4 (9.5)</td>
<td>2.26</td>
</tr>
<tr>
<td>Years of experience in medical communication</td>
<td>42</td>
<td>6 (14.3) 14 (33.3) 13 (31.0) 9 (21.4)</td>
<td>2.60</td>
</tr>
<tr>
<td>Willingness to work onsite</td>
<td>9</td>
<td>1 (11.1) 3 (33.3) 2 (22.2) 3 (33.3)</td>
<td>2.78</td>
</tr>
<tr>
<td>Highest academic degree</td>
<td>23</td>
<td>4 (17.4) 2 (8.7) 7 (30.4) 10 (43.5)</td>
<td>3.00</td>
</tr>
<tr>
<td>AMWA certificate(s) held</td>
<td>1</td>
<td>0 (0.0) 0 (0.0) 1 (100.0) 0 (0.0)</td>
<td>3.00</td>
</tr>
<tr>
<td>Whether freelance is an incorporated entity</td>
<td>3</td>
<td>0 (0.0) 1 (33.3) 0 (0.0) 2 (66.7)</td>
<td>3.33</td>
</tr>
<tr>
<td>City and state/province of residence</td>
<td>7</td>
<td>0 (0.0) 0 (0.0) 2 (28.6) 5 (71.4)</td>
<td>3.71</td>
</tr>
<tr>
<td>Non-AMWA credentials (CCMEP, CMPP, ELS, RAPS)</td>
<td>3</td>
<td>0 (0.0) 0 (0.0) 0 (0.0) 3 (100.0)</td>
<td>4.00</td>
</tr>
<tr>
<td>Willingness to travel</td>
<td>2</td>
<td>0 (0.0) 0 (0.0) 0 (0.0) 2 (100.0)</td>
<td>4.00</td>
</tr>
</tbody>
</table>

*aThe response count is the total number of clients who put the item in their top 4.

b1.00 = most important; 4.00 = least important. The weighted average score for each item reflects how many clients gave it a #1 ranking, how many gave it a #2 ranking, etc. For example, the weighted average score for “willingness to work onsite” is higher than that for “highest academic degree” because of the 9 clients who said “willingness to work onsite” was a top-4 consideration for them, most rated it as their first or second consideration, whereas of the 23 clients who considered “highest academic degree” a top-4 consideration, most rated it as a third or fourth consideration. Specifically, each weighted average score was calculated as [(number of clients who assigned a #1 ranking × 1) + (number of clients who assigned a #2 ranking × 2) + (number of clients who assigned a #3 ranking × 3) + (number of clients who assigned a #4 ranking ×4)] divided by the response count. Thus, the score for “willingness to work onsite” was [(1 × 1) + (3 × 2) + (2 × 3) + (3 × 4)] / 9 = 259 = 2.78. In preparing recommendations for the Executive Committee, the Freelance Directory Subcommittee considered both response count and weighted average score.
By Barbara Woldin  
Freelance Writer/Editor, High Bridge, NJ

The AMWA Journal brings you this new section to tell you about resources that can help make your work as a medical communicator easier and more productive. In each issue, we provide an overview of a few Web sites that we hope you will want to bookmark.

National Guidelines Clearinghouse (NGC)  
www.guideline.gov

The National Guidelines Clearinghouse Web site is an initiative of the Agency for Healthcare Research and Quality (AHRQ) and is a repository of more than 2,400 evidence-based clinical practice guideline summaries submitted by organizations and individuals worldwide. (Full-text guidelines are available in print or electronic format on request.) Each of the listings is a structured, standardized summary containing information according to the NGC Template of Guideline Attributes.¹

Recently updated and enhanced, the Web site now allows users to identify the guidelines more quickly and find information faster, utilizing a side-by-side comparison feature, an enhanced semantic search engine, and easier navigation tools. Once connected, viewers can find guidelines relevant to their practice or work by using the menu bars on the left side to navigate through the Web site. Menu selections include Guidelines, Expert Commentaries, Guideline Syntheses, Guideline Resources, Annotated Bibliographies, Compare Guidelines, FAQs, and About. In Guidelines, one can access guideline summaries by clicking on Topic and then either Disease/Condition or Chemicals and Drugs, the selections of which are all listed by MeSH terms. Guidelines can also be searched by organization (ie, medical society) via an alphabetical listing. To search through the complete list, click on Guideline Index; to see guidelines that have not yet been posted to the Web site, click on Guidelines in Progress. In both cases, guideline titles are listed alphabetically by guideline developer. The latter list includes both new and updated guidelines that have met the NGC Inclusion Criteria.¹ Summaries of guidelines that have been withdrawn from the NGC Web site can be found within the Guideline Archive link.

The Expert Commentaries section provides editorial insights on current issues of importance to the guideline field, including perspectives on trends in guideline development, reviews/critiques of guidelines, and comments on topics related to evidence-based medicine or similar themes. An Expert Commentary Archive is also available.

The Guideline Syntheses section provides systematic comparisons of selected guidelines that address similar topic areas. Each synthesis covers such key elements of comparison as areas of agreement and difference, major recommendations and corresponding strength of evidence and recommendation rating schemes, methodology, source of funding, and benefits and harms.²

You can generate side-by-side comparisons for any combination of 2 or more guidelines. To do so, select the checkbox next to the title(s) of any guidelines you want to compare and click “Compare Guidelines.” Once on the Compare Guidelines page, select the guidelines you wish to compare, and click on the “Compare” button. Attributes that are compared are available in the Guideline Comparison Template.³ The guidelines you access are retained until you close your browser, so you may compare guidelines from multiple searches.

The Guideline Resources page contains links to AHRQ Evidence Reports, Hospital-Acquired Conditions, Complementary Web Sites, Mobile Resources, and Patient Education Materials. In Annotated Bibliographies, viewers can search over 5,750 citations for publications and resources about guidelines by any or all of these criteria: keyword(s), Development Methodology, Guideline Evaluation, Guideline Implementation, and Guideline Structure.

¹ See link to Guideline Summaries on the About page.  
² See link to Guideline Synthesis Template on the Guideline Syntheses page.  
³ See link to Guideline Comparison Template on the Compare Guidelines page.

Gateway to Health Communication & Social Marketing Practice  
www.cdc.gov/healthcommunication/index.html

The Center for Disease Control and Prevention's (CDC's) Gateway to Health Communication and Social Marketing Practice provides medical communicators with a wealth of resources to help build successful health communication or social marketing campaigns and programs. Given the increasing popularity of social media, Twitter, and other such tools, personalized medicine is coming into its own, and the CDC's Gateway Web site can help you and your clients catch the brass ring.

For those of you who have not yet embraced social media, there is a Health Communications and Social Marketing Basics section to get you started, as well as PDF files you can download. The Gateway Web site is divided into...

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WEB WANDERINGS

Gateway to Health Communication & Social Marketing Practice
www.cdc.gov/healthcommunication/index.html

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6 major Health Communication & Social Marketing Topics: Audience, Campaigns, Research/Evaluation, Channels, Tools & Templates, and Risk Communication. Besides insights into various population groups, the Audience topic covers health literacy issues, including online health literacy training. The Campaigns area provides examples of many CDC campaigns and related materials. Under Research/Evaluation, you’ll find links to research summaries, social media metrics, e-health data briefs, databases, nonprofit organizations/research centers, federal research, journals and reports, research tools, and evaluation. The Channels topic gives you the resources to choose the most appropriate mode of distributing your message. Tools & Templates contains links to the Public Health Image Library, entertainment education, interactive health marketing Web sites, and Federal health marketing and communication sites, as well as a downloadable copy of the Simply Put guide. Risk Communication is devoted to issues of concern to emergency risk responders and crisis intervention.

Also found in Tools & Templates are CDCynergy and CDCynergy Lite, interactive training and decision-support tools available for downloading and installing on your computer. CDCynergy is designed to help public health professionals systematically plan communication programs within a health context. The program allows users to assemble pieces of a health communication plan systematically by answering questions in a specific sequence and includes 6 phases: Problem Description, Market Research, Market Strategy, Interventions, Evaluation, and Implementation. CDCynergy Lite is a lighter version of CDCynergy and is intended for those who want to update from the full edition and have had previous social marketing experience. CDCynergy Lite is based on best practice social marketing principles and can help you develop, implement, and evaluate an effective social marketing plan.

On the site you can also click on the Gateway Blog, read success stories from others, sign up for e-mails, and read about the latest Gateway news. Whether you need information on analyzing and segmenting an audience, choosing appropriate channels and tools, or evaluating the success of your messages or campaigns, the CDC Gateway Web site can be of great benefit to medical communicators.
Who are your Twitter tweeps? If you use Twitter, “tweeps” are your peeps—the people and organizations you follow and interact with. In this issue of the Journal, I’m beginning a short column to introduce you to tweeps worth following.

Don’t worry about whether you can keep up with every tweet that you get. Twitter has been described as a river of information and conversation that you can dip into whenever you wish. When you swim, do you stay in the water so long that you have time for nothing else? Of course not. So even though you might follow several hundred people and organizations on Twitter, you won’t read every tweet and you won’t neglect your work. (I follow 556 tweeps and have 819 followers.) You’ll tweet, skim others’ tweets, respond, and retweet (repost others’ interesting tweets, with credit and your brief comments) as you have time and when tweets ignite your imagination.

These tweeps provide useful and thought-provoking information:

- @AACR: American Association for Cancer Research, which has as its mission preventing and curing “cancer through research, education, communication, and collaboration” (www.aacr.org)
- @amednews: American Medical News, a newsletter on business, policy, public health, and legal issues for physicians (www.ama-assn.org/amednews)
- @COPE: Committee on Publication Ethics (http://publicationethics.org; yes, that’s a zero, not a capital letter O, in COPE’s Twitter handle, or Twitter address)
- @EdGandia: guru on self-employment; author of the book The Wealthy Freelancer (http://thewealthyfreelancer.com)
- @garyschwitzer: Gary Schwitzer, publisher of HealthNewsReview.org, which reviews how well medical journalists cover health news (www.healthnewsreview.org)
- @guardianscience: science news, comment, and analysis from the Guardian (online version of the UK newspaper)
- @Health_Affairs: from the blog of Health Affairs, a peer-reviewed journal of health policy thought and research (www.healthaffairs.org/blog)
- @kevinmd: Kevin Pho, MD, a physician who’s well known on Twitter for writing about health care reform, the physician–patient relationship, and health news (www.kevinmd.com/blog)
- @NEJM: The New England Journal of Medicine, the well-known US medical journal (www.nejm.org)
- @PLoS: the Public Library of Science, publisher of open-access science journals (www.plos.org)
- @psypress: Psychology Press, publisher of psychology textbooks, monographs, professional books, tests, and academic journals (www.psypress.com)
- @Reuters_Science: Science news from Thomas Reuters, an international multimedia news agency whose news stories are often picked up by news publications and broadcasts (www.reuters.com/news/science)
- @scholarlykitchn: from the blog of the Society for Scholarly Publishing, The Scholarly Kitchen (http://scholarlykitchen.sspnet.org)
- @slackbooks: SLACK Books, publisher of medical and allied health books and peer-reviewed journals (www.slackbooks.com)
- @TheLancet: The Lancet, the well-known UK medical journal (www.thelancet.com)
- @UnderMicroscope: stories for, by, and about women in science, from Under the Microscope, the online component of the Women Writing Science project at the Feminist Press (www.underthemicroscope.com)

Have questions about Twitter? Contact me on Twitter, @KOKEdit, or by e-mail, editor@kokedit.com.

Katharine tweets under @KOKEdit for her editing business, www.kokedit.com; under @BELS_editors for the Board of Editors in the Life Sciences, www.bels.org; and under @CScienceEditors for the Council of Science Editors, www.councilscienceeditors.org.

Unsure of what a hashtag is? Don’t know who a lurker is? You can brush up on your familiarity with these and other words related to social media in “The Ultimate Glossary: 101 Social Media Marketing Terms Explained,” which can be found at http://tiny.cc/rqfi5.
Diverse topics, interesting inquiries, and lively discussions are hallmarks of AMWA’s LinkedIn Group. The group touted 1,045 members in early September from a variety of niches, including editorial services, regulatory affairs, technical writing, nursing, pharmaceutical, educational writing, grant writing, scientific writing, marketing, and consumer health care. This eclectic mix of writers gains valuable insights and shares different perspectives from colleagues across the nation and around the world.

Recent discussions on AMWA’s LinkedIn Group covered a variety of topics.

Michelle Olsher from Philadelphia requested suggestions for designing an easy and functional Web site. Twenty responses offered assistance, from helpful Web sites to software programs to Web hosting companies for the do-it-yourselfers to just hiring a professional to save time and energy.

Cynthia Reyes, MD, in Dallas/Ft. Worth inquired about the ways to jumpstart her new educational writing business. Members presented options, such as attending AMWA local and regional meetings for ideas and networking opportunities, as well as garnering information on hospitals, medical societies and medical education companies from the Web site of the Accreditation Council for Continuing Medical Education (ACCME).

AMWA’s Marketing Manager, Duane Brewster, stirred up the group by posting a commentary by Dr Otis Brawley discussing whether good medical writers are becoming an endangered species. Did Dr Brawley start with good intentions of “calling for more rigorous training of medical journalists,” but then just get “lost in the rant,” as suggested by Stacey Chapman Tobin, PhD, ELS, of Chicago? Tom Gegeny, 2009-2010 AMWA President, noted that while AMWA shares in the concern that “articles reporting clinical and scientific research results can be exploited or exaggerated for commercial or professional gain,” AMWA continues to diligently work “to raise standards, provide opportunities for education, and promote ethical principles.”

Group members were also notified of opportunities to enter contests, become coaches, summarize open sessions or lead a breakfast roundtable discussion at the national conference. Join AMWA’s LinkedIn community and make some connections—to ideas, colleagues, and events that can improve your business. See you on the discussion page (www.linkedin.com)!

Blog Log

I thought about having a theme for this issue, but when I started wandering around looking at blogs and Web sites you might be interested in, I realized that wasn’t going to work—at least not this time. If you have a theme you’d like me to explore, however, send an e-mail to me at debra@debragordon.com.

TechNewsWorld:
www.technewsworld.com/perl/section/med-tech/
If you’re interested in robotic prosthesis, health information technology, and the use of wireless technology in health care, the blogs on this site are for you. Think of it as a site for medical geeks.

Working a piece on plastic surgery? How about chiropodists (blog topic: Foot Orthotics for Golf)? Looking for blogs from medical publishers? Start with this medical blog aggregator. Basically, this site offers a list of topics, with links to blogs in those topics. They include everything you can imagine, some of which I’ll be highlighting in future columns. For instance, clicking on “Medical Marketing” brought me to http://creationinteractive.com, a blog written by a medical marketing company, and the writer’s summary of the mHealth Conference 2010 from Dubai.
President’s Note*

Melanie Fridl Ross, MSJ, ELS, 2010-2011 AMWA President

What an honor it is to stand before you tonight, as the American Medical Writers Association marks its 70th anniversary here in Milwaukee, my hometown. Although it’s been nearly 33 years since I’ve lived in this city, I have deep roots here, aunts and uncles and cousins and friends, the descendants of German and Czech immigrants whose industrious and enterprising nature helped forge the future.

As a child, I didn’t realize I was part of watching history in the making. But I suppose the founders of AMWA, who 70 years ago gathered in the small Mississippi River town of Rock Island, IL, on September 25, 1940, to form the Mississippi Valley Medical Editors’ Association, had more than an inkling that their big dreams would have a lasting legacy. They aspired to something even bigger than themselves, and I think they knew they were part of something special. Just 8 years later, the organization grew into the American Medical Writers Association, and look at us today, marking our platinum anniversary, more than 5,300 members strong.

Many of you know that a couple of years ago, several enthusiastic volunteers initiated the AMWA History Project, which aims to chronicle the evolution of AMWA and of medical communication as a profession, in part through the stories and experiences of AMWA members.

The idea is that doing so will help us better appreciate all AMWA has to offer by looking at how far it has come. And it will help spotlight the many important contributions of medical writers and editors. I hope you’ve had a chance to look at the poster highlighting many of our association’s achievements; a modified version of the poster appears on pages 166-167, and a PDF version is available on the AMWA Web site (www.amwa.org).

These milestones are truly a reflection of the talents and tireless efforts of everyone over the years who has championed high standards for medical communication and helped to build new and ever-growing educational opportunities by supporting AMWA’s mission. It all started with AMWA founder Dr Harold Swanberg, who said, “Next to the art and science of Medicine is Communication in Medicine. How can real progress be made in medicine or scientific knowledge if we do not record it so others may know what has been accomplished? How can real progress be made in any field if we do not know what others have done and are doing? All substantial progress, therefore, depends on Communication, be it writing, drawing, radio, television, etc. Hence the great importance of Communication and the necessity to do everything we can to improve it.”

In 1941, the fledgling association held its first meeting, on the brink of World War 2. Dig into our archives a little and you’ll learn that the papers from that first meeting were never published because of a paper shortage. But a year later, the papers of the second meeting appeared in the Mississippi Valley Medical Journal, which became the association’s unofficial publication.

In an address later published in the Journal as an original article titled “A Plea to Medical Editors,” Dr. Clyde P. Dyer, AMWA’s second president and the editor of the St. Louis County Medical Society Bulletin in St. Louis, MO, called on members to “Have Vision, Then Decision.” He told them to “study the needs of the public and how best to meet them.” He advised: “Decide what are the most important problems and with a little teamwork and follow-through we should arrive at a successful conclusion.”

So what is AMWA’s vision for the future? What decisions will we make?

AMWA’s next 70 years will be written by all of us. Our commitment to promoting excellence will in turn leave a lasting legacy in its own right. AMWA must remain true to its mission and in doing so will help continue to set the bar high. But we must work hard to build momentum, to position our organization as a global thought leader on the most pressing issues of our profession, to uphold the highest ethical standards, and to raise awareness of the opportunities that abound in medical communication.

Think about that word, momentum. Swanberg and his colleagues knew its value and helped to fuel it by embracing shared vision and values. In recent years, our organization has been further energized. In the past 12 months alone, we’ve logged so many accomplishments. And we’ve begun to lay the groundwork for important new initiatives as well.

*This note represents a transcript of the president’s inaugural address, given Friday, Nov. 12, at the AMWA Annual Conference.
The expansion of the certificate program, for example, has positioned us for growth and added flexibility for AMWA members. In the year ahead, we will work hard to add to our offerings for the business certificate, roll out additional ethics workshops, and polish our advanced certificate program. We also will continue to explore new ways of providing the high-quality educational experiences our members expect, whether through the latest self-study modules, through new offerings such as AMWA Pocket Trainings, or through long-distance learning opportunities. As you’ve heard, we’ll push for more research in the realm of medical communication. And importantly, we’ll continue to investigate the level of interest in a certification program, and the resources and support that would be required to establish one.

In other areas, we’ll no doubt continue to pursue opportunities to “go green.” At the University of Florida, where I work, we call it “Think Before You Ink.” Using resources wisely is not only kind to our world but it also helps our bottom line and often results in improved service. Consider that when the postconference survey was moved online last fall, the response rate nearly doubled. This year, roundtable evaluations from the Milwaukee conference will also be conducted electronically. The Delaware Valley chapter decided to “go green” with its chapter newsletter, now published entirely online. And many members also have opted to receive the AMWA Journal in this fashion. There will always be a place for print, of course, but these measures help give us balance and have saved us money.

Beyond going green, AMWA also will continue to explore ways to “go global.” Brian Bass and Larry Liberti, under the auspices of the Special Projects and Communications Committee, have developed a list of 40 national and international organizations. This year, we’ll evaluate how to foster relationships with these groups, to raise awareness of AMWA’s mission, and to identify ways we can work together to propel the profession forward. Closer to home, leaders of AMWA’s sister organizations and more than 200 professors of science, technical, or medical writing have recently begun receiving complimentary 1-year subscriptions to the Journal.

Going green, going global... AMWA is also increasingly “going online.” Our long-range plan supports using “technology advances to effectively communicate with and provide educational opportunities for members.” Did you know the Carolinas Chapter has a position called “Web Boss”? Or that our LinkedIn account has more than 1,000 AMWA members? This past July, Lori Alexander, editor of the AMWA Journal, created the AMWA Journal Blog at amwajournal.blogspot.com. The main goal: to showcase Journal content and attract the attention of nonmembers. Speaking of blogs, the Annual Conference Blog and Twitter feed are up and running, thanks to the efforts of Vicki White and her enthusiastic group of bloggers. You can read the Conference Blog at amwaconference.blogspot.com. And we are exploring ways to use social media tools to publicize AMWA products and events. If you haven’t seen it, check out the new regular section in the Journal on social media.

And not least of all, we will seek to serve our members by listening and leading. These past couple years have been difficult for many as we ride out the economic downturn. Making sure we support each other is essential. AMWA already offers much for our members through a rich offering of benefits and of course our educational program. We welcome new members and first-time conference attendees at functions such as the Conference Coach Connection. What more might we do?

Let me tell you a short story about one AMWA member. She joined around 1997, after she took a second appointment at the university where she worked, a job that required her to be an author’s editor for a prominent cardiologist. She had written about medicine for a lay audience for years, but this was an entirely new animal. The new boss told her she’d have it down “cookbook” in 2 months. She wisely said she wouldn’t take the job unless he’d agree to help her find a mentor. As the English majors among us who have read Homer may recall, Mentor was Odysseus’ trusted friend, in whose guise Athena became the guardian and teacher of Odysseus’ son Telemachus. These days, we use the word to refer to a wise and trusted counselor or guide—a tutor or coach.

Long story short, she joined AMWA. And 13 years later, she’s standing here before you tonight. And yes, she’s me. And the mentor? Well, I found many, right here at AMWA. Every workshop leader I ever had while earning my core and advanced certificates. Every open session leader and the roundtable speakers I ate breakfast with at every annual conference. The past presidents and committee members. The people I exchanged cards with on the bus, back before I became a little too busy for tours.

You see, all of us, whether we realize it or not, are helping each other in small—and sometimes big—ways, to enhance our education, to expand our professional networks, and even to grow in our careers. In the year ahead, I’d like to continue to evaluate our outreach in this area, from our Conference Coach Connection program to exploring the feasibility of an informal career mentoring program focused on short-term arrangements with specific goals. I know I wouldn’t be where I am today, both in AMWA and in my career, without the countless people who helped me along the way.

I want to thank you for this opportunity to serve you, and to work with you together to pave the way for the next 70 years, which appear very bright indeed. You know, in 1940, continued on pg 194
Critical Path Institute Helps Safely Accelerate the Development of New Medical Products

By Kathryn W. Boltz, PhD

On January 16, 2010, 20 members of the Arizona satellite group of the Pacific Southwest AMWA chapter attended a presentation by Raymond Woosley, MD, PhD, of the Critical Path Institute, a nonprofit organization that helps accelerate the approval of innovative new drugs, diagnostic tests, and devices by working in collaboration with scientists from the US Food and Drug Administration (FDA), industry, and academia. The meeting was held at the beautiful Tohono Chul Park in Tucson, AZ. Mary Stein, Arizona AMWA Liaison, gave the welcome address.

Before becoming the founding President and Chairman of the Critical Path Institute, Dr Woosley had an impressive career that included positions in academic medicine at Vanderbilt University, Georgetown University, and the University of Arizona in Tucson. He established the Institute in response to the 2004 FDA message, Challenge and Opportunity on the Critical Path to New Medical Products.

Much of the Institute’s initial funding came from Tucson area philanthropists. The Institute does not accept funds from any regulated industry, which allows the Institute to act as a trusted third party.

There is a great disparity in the country between how much is spent on biomedical research and how little is spent on regulation. The entire FDA budget, Woosley noted, is less than the budget of the school district of Montgomery County, MD, where the FDA is located. The disparity between funding for research and funding for regulation is akin to rowing a boat with one strong arm (the NIH) and one puny arm (the FDA)—the boat just goes in circles, Woosley said.

Other examples of the broken American health care system Woosley cited are the low rate of FDA drug approval, the types of drugs being developed, and the cost of drug research. In 2008, the FDA approved 21 new medications. Of those, only 5 were for conditions that are both common and serious. In the last decade, cost per approved drug increased to $1 billion, time-to-market doubled to 15 years, and the drug approval failure rate increased to 90-95%. Woosley criticized the drug approval process for not evolving in the past 20 years and said that better tests are needed to determine the safety of new drugs and to more accurately measure their effectiveness. Monitoring diseases instead of symptoms would also improve health care.

The Critical Path Institute exists to find solutions to these problems by helping the FDA, industry, and academia work collaboratively to make drug development more predictable, reliable, efficient, and based on valid science. The nonprofit organization connects a consortium of members and advisors in 30 major pharmaceutical companies, 6 federal agencies, and 6 patient advocacy organizations, spanning 17 time zones.

One major success of the Institute was the joint FDA-EMEA qualification of 7 biomarkers for renal injury in April 2008. A more recent initiative is the Institute’s involvement in Alzheimer’s disease research. Each year, Alzheimer’s disease costs the US health care system $150 billion. Patients and their families incur an additional estimated cost of $150 billion annually in nondirect costs, such as missed work for family members caring for patients. Costs of Alzheimer’s disease are estimated to grow to $1 trillion by 2030, a catastrophic increase for the country, Woosley said.

Despite the burden of Alzheimer’s disease, only 5 new drugs for the condition have emerged in the past 20 years, and all have failed to fundamentally alter the course of the disease. The Critical Path Institute is addressing this need through its Coalition Against Major Diseases, whose goal is to develop new treatments or “cures” in less than 3 years with a greater than 95% chance of success. The Coalition includes patient advocacy groups, the FDA and NIH, and 16 major pharmaceutical companies. To address concerns about safety for accelerated drug development, Woosley discussed the excellent safety record related to the rapid drug development for HIV/AIDS.

The presentation concluded with a discussion of the role of more effective drugs can have in reducing health care costs. If drug development costs are lower, lower prices for patients can be negotiated. Additionally, innovations, such as personalized medicine—drugs developed for specific biomarkers or genomics—will be cost-effective, because each patient will receive the most effective drug. For innovative drug development, Woosley said, valid biomarkers are needed that are approved by regulatory agencies and that have received independent certification. Innovative tools and methods for trial design, including adaptive trial design and trial simulation using disease models, as well as innovative business models, are also needed.

Kathryn W. Boltz is a freelance medical writer from Phoenix, AZ.
Mark D. Weiss is a talented and much-published writer, with over 150 articles to his credit. But many who know him from his long membership in AMWA realize that is only half the story. “I’ve had 2 simultaneous careers,” Weiss says. “As a chemist, I have served in various capacities in the pharmaceutical industry, while freelancing as a journalist writing for trade magazines that service the chemical, pharmaceutical, and biopharma industries.”

While studying for his Bachelor of Science in chemistry at Clarkson University, Potsdam, NY, Weiss became involved in the college newspaper, eventually managing its business operations and serving as layout manager. He went on to earn a Masters degree in chemistry at Binghamton University, but he missed journalism. So, when he was hired as a pharmaceutical chemist at Lederle Laboratories (now Pfizer), he enrolled at Polytechnic University in Brooklyn and graduated with a Masters degree in specialized journalism in 1985. While there, he wrote an article on the use of lasers in forensic science, which an instructor dismissed as unpublishable. In October 1986, “Lasers Foil Criminals: The forensic chemist’s new tools,” by Mark D. Weiss was published in *Industrial Chemical News*; the same magazine had published “Luminescence: Beyond the Firefly,” his first article, as the cover story for its June 1986 issue. A freelance career was born.

The scope of his publications ranges from biotechnology through chemistry, computer-aided drug design, process analysis and control, separations and purifications, and scientific topics too numerous to mention. No matter how much writing his “day job” included, he continued to seek freelance writing opportunities, which presented some challenges, as he is hearing-impaired and has worn hearing aids since he was about 4 or 5 years old. His wife, Ilene, a special education teacher, supplied the solution: Because she arrived home from her job several hours before her husband, she was able to set up interviews, which Mark would then conduct on a phone attached to a tape recorder. Ilene listened to the phone interview on an extension and mouthed the responses, which Mark lipread, allowing him to have a normal conversation with the interview subject.

Mark joined AMWA in 1983 when an instructor at Polytech suggested AMWA to students who may be interested in a medical writing career. “For 27 years,” he says, “AMWA has been a constant in my writing career. When the Empire Chapter was called the Metro NY Chapter, I wrote book and software reviews for its newsletter. Not only were the reviews fun, but the editors gave me a venue to publish and gain much-needed writing experience.”

Weiss remained at Lederle until 1997 in several positions, including that of Medical Writer, until an opportunity to join Purdue Pharma knocked. He joined Purdue, rising to Principal Scientific and Technical Writer. Since then, he has held other positions, including Scientific Writer for OnAssignment Clinical Research. He currently works as a consultant for Pharmalink Consulting, Short Hills, NJ.

In April 2006, Weiss founded his own pharmaceutical writing and consulting company, Apothaceutics International. “I was on a plane, half asleep, and the name came to me: ‘apotha,’ pharmacy and ‘ceutics,’ art and practice of preparing/manufacturing drugs,” he explains. “The thrust of my services is writing, editing, and otherwise preparing the CMC [chemistry, manufacturing, and controls] section and its supporting documentation.”

He attends AMWA annual conferences regularly. He earned his core certificate in 1992 and an advanced certificate in 2005. With fellow member Jennifer Fissekis, he co-led the workshop, “Tables and Graphs: A Pharmaceutical Approach” at the Dallas, TX, meeting last year and was invited to return as co-leader in 2010 in Milwaukee.

“AMWA has helped me stay connected to medical/scientific writing in the pharmaceutical industry,” Weiss says. “Now I’m able to give back by co-teaching the tables and graphs workshop with Jennifer.”
Diane Feldman died on March 28, 2010, after a 14-month battle against recurrent metastatic breast cancer. Diane was an active and enthusiastic member of the AMWA Carolinas Chapter.

Born in Detroit, MI, Diane grew up in a large and close-knit family. She attended Western Michigan University in Kalamazoo, MI, graduating with a degree in business. In 1985, she moved to Chapel Hill, NC, where she worked as a travel consultant. Later, she graduated from the Technical Writing program at Durham Technical Community College in Durham, NC. Diane had a long and distinguished career as a technical writer and editor. She was an active and respected member of the Society for Technical Communication (STC), which created the Diane Feldman Technical Editing Scholarship in her honor (www.stc-techedit.org/Scholarship). She was an Associate Fellow of STC and was the manager of the Technical Editing Special Interest Group for 7 years.

In the early 2000s, Diane began a mentoring program in medical editing with AMWA member Lottie Applewhite, who was the co-creator of AMWA’s core curriculum certificate program. Lottie helped Diane forge a successful career as a freelance medical editor. Diane's company, AuthorCraft Editorial Services, served a variety of clients in industry, private practice, and academia. She edited books, manuscripts, and presentations on topics ranging from gastroenterology to orthopedic surgery. Diane also worked with the Copyright Clearance Center (CCC) on their “Beyond the Book” programs that provided insights and encouragement to scholarly authors. She moderated sessions on copyright with Christopher Kenneally and Dru Zuretti of CCC at AMWA conferences.

Diane served the Carolinas Chapter as listserv manager for many years. She also played an important role in planning and producing several annual chapter conferences and other chapter events.

At the time of her death, Diane was within 1 semester of completing her Master of Liberal Arts degree at Duke University. She was a life-long learner with many interests.

Diane lived a big life. She loved to travel. As a young adult, she traveled solo around the world, making friends wherever she landed. Later, she and her husband Patrick enjoyed traveling together, near and far. They shared a special love for Italy and hoped to someday live there.

Diane was an accomplished cook and gardener. She had a great sense of style and loved decorating, especially during the holidays. She was a cheerful person with a hearty, easy laugh. She was happiest when entertaining or being entertained. Diane cared deeply about her friends and family. She was a great friend, always ready for fun or to lend support during difficult times.

Upon her diagnosis of terminal cancer, Diane announced that her remaining time would be dedicated to hope and fun. With a prognosis of 2 months’ survival time, she undertook every grueling treatment offered, learned how to meditate, exercised every day she was able, continued her studies at Duke University, and accepted assistance from her Care Team, a group of nearly 20 friends who cooked meals, drove her to doctor appointments, read to her, and much, much more. Diane lived a year longer than she was expected to, and in that time she visited the North Carolina shore several times, went to family reunions in Michigan, hosted her annual Thanksgiving Day feast for over 20 people, and helped throw this writer a 50th birthday party.

Diane is greatly missed by her heroic husband, Patrick Hamlett; her 5 siblings and large, extended family; and her many friends and colleagues across the country.

—Tracey Fine, ELS

The AMWA Journal extends its sympathy to Doug Haneline, 2010-2011 AMWA Secretary, who lost his wife, Ellen, on October 12, 2010.
I appreciated reading the article by Mary Arthur and Nadine Odo on anesthesiology [AMWA J. 2010; 25(2):50-56], which gave a welcome account of some aspects of anesthesiology. Understanding that no short article can be comprehensive, I would, however, like to make 3 points about the historical aspects of the article.

First, a comment on 2 quotes from the article: (1) “the anesthetic effects of ether and nitrous oxide were not recognized until the early 1800s”; and (2) "By the 1800s, the scientific knowledge needed for surgical anesthesia was in place.” Both statements are misleading. On the one hand, no one had any conception of anesthesia before 1824, when Henry Hill Hickman (not mentioned by Arthur and Odo) demonstrated the effects of carbon dioxide on small animals and even suggested a similar inhalational approach in human beings, and that suggestion was completely ignored, both in England and France. The absence of any ideas attuned to the concept of anesthesia is illustrated by the belief of French surgeon Louis Velpeau, writing in 1839, that any attempt to obviate the pain of surgery was no more than a chimera. In fact, most interested individuals, such as Humphry Davy (also not mentioned), who published his researches on nitrous oxide in 1800, could only think of nitrous oxide in terms of its analgesic effects. On the other hand, when William Morton did demonstrate the effects of ether in 1846, he opened medicine to an entirely new field of medicine, the chief problem of which was precisely the lack of knowledge that was specific to anesthesia. That is why John Snow’s research on basic-science aspects of anesthetic agents, conducted from 1847 through 1851, was so significant. As an aside, Morton’s reason for introducing ether was the plain prosaic desire to find a potent analgesic that would enable him to extract teeth painlessly before fitting dental prostheses, and so make money.

Second, the authors surprisingly choose to omit any reference to the revolutionary significance of the introduction of several intravenous agents: in 1933 of sodium evipal and in 1934 of sodium thiopental; in 1942 of curare; and in 1977 of propofol. All of these agents profoundly altered anesthetic practice. Moreover, those intravenous agents are vastly more important historically than the face masks and the Analgizer, discussion of which takes up valuable space in the illustrations of them.

Third, as the authors note, the recognition of anesthesiology as a specialty was a late development. However, it was a complex as well as a lengthy process, with much more to it than just the realization of the need for formal training and basic-science knowledge—the need for which, anyway, had been understood in the 19th century. A great many other forces, both negative and positive—particularly technological, socioeconomic, and professional—had to be played out before anesthesia was finally recognized as a specialty in the late 1930s. Certainly, the energy, vision, and ethos of individuals like Waters and Lundy, Magill and Macintosh in the United Kingdom, and Bourne and Griffith in Canada contributed greatly, though they were fortunate in that they made their case when specialty development was swept along in a second wave of recognition in the 1930s.

A fuller account of these and other points may be found in From Craft to Specialty: A Medical and Social History of Anesthesia and Its Changing Role in Health Care, by David Shephard in association with Alan Sessler, Francis Whalen, and Tuhin Roy (Bloomington, IN: XLibris Corporation, 2009 [www.XLibris.com]).

—David Shephard, MD
surgical anesthesia had fallen into place by the 1800s appears to be buttressed by Shephard's own discussion of Henry Hill Hickman's demonstration of the effects of carbon dioxide on small animals, as well as of Davy, Morton, and Snow. We did not mean to imply that all the knowledge that could ever possibly be needed for surgical anesthesia was discovered 200 years ago, but that a firm foundation had been laid by that time.

Shephard notes that the introduction of intravenous agents profoundly altered the practice of anesthesia in the 1900s. It is regrettable that we did not mention this and we certainly agree that thiopental and curare were almost as revolutionary as ether. With Shephard's insightful contribution, we can categorize the evolutionary phases of anesthesia as (1) the pre-1800s when any surgical procedure could be a nightmare rife with pain and suffering, (2) the 1800s with the advent of inhalational anesthetics, and (3) the 1900s and beyond when intravenous agents and advanced technologies enabled physicians to offer patients improved safety and comfort during surgical procedures.

Shephard also notes that the path to recognition of anesthesiology as a specialty was a complex and lengthy one, and we agree, however we were unable to describe it in detail within the space allowed. It was not our intent to provide a comprehensive historical analysis of the practice of anesthesia, and a fuller account would undoubtedly be found in his book. There are many sources from which we could have obtained information. As an example, one could find more than 200 books related to the history of anesthesia on Amazon.com. Considering the controversy surrounding the beginning of anesthesia, the source of information is crucial. For this reason, we limited ourselves to well accepted sources.

We hope readers of our article gained a better, albeit simplified, understanding of the practice of anesthesia.

—Mary Arthur, MD, and Nadine Odo, CCRC
Anesthesiology and Perioperative Medicine, Medical College of Georgia/Georgia Health Sciences University

Mark was introduced to Jennifer early in his Lederle career by a mutual acquaintance who was organizing an effort to write a history of the New York section of the American Chemical Society. "Though I don't recall the effort getting off the ground at that time, Jennifer and I have been friends ever since."

"I have known Mark as a friend, colleague, partner-in-writing-crime, and fellow scientist for much of my professional lifetime," Fissekis says. "He does not hesitate to point out any weakness in writing that would result in the reader not getting the message. He simplifies complex ideas and communicates the substance with crystal clarity. By combining writing skills obtained through a Masters in specialized journalism with scientific knowledge attested to by his Masters degree in chemistry, he brings an inquiring, scientific mind to dealing with data, in order to answer the all-important question 'What does it mean?'

She concludes, "Mark is a valuable asset to me professionally, and to others who have worked with him. An experienced and dedicated writer, he knows that the audience is the final arbiter of one's success, and that communicating accurately with them is the ultimate measure of one's professional accomplishment."
Six years ago, when I was pregnant with my son, another mother told me, “Once you have kids, you won’t care about work anymore.” At the time, I worried she might be right. I was about to leave the security of a full-time job and start my own business. I wanted to strike out on my own in part because I wanted a more flexible schedule to be with the baby. But I worried whether I’d have enough professional dedication to keep a business going.

Before the baby was born, I landed one regular client, a physician at a nearby medical center. I had planned to take a few months off after the birth and then start working while the baby slept. I had been told that babies nap a lot, and I mistakenly believed this was true. Baby Erik, however, cried night and day for 7 weeks straight. I didn’t have time to bathe, never mind do work requiring thought.

When Erik was 4 months old—and still up half the night—my one client contacted me and asked whether I was ready to work. By then, extreme exhaustion had set in. I could barely see straight. My jaw would hang open until it was so sore I’d be prompted to close my mouth. Even so, I jumped at the chance to do “real” work. After months of nursing and changing diapers and doing laundry, getting paid to use my brain seemed like salvation.

Soon I found care for Erik, and as I began working regularly, more clients requested my services. As business increased, I decided to replace my old PC with a new laptop. We went to the Mac store as a family; I wheeled Erik around the sleek displays in an umbrella stroller. While my husband talked specs for my new PowerBook G4 with a sales associate, I wheeled Erik out of the store to nurse him. I was still sleep-deprived, but getting a shiny new laptop with the money I was earning enlivened me. I felt as if I’d arrived as a businesswoman.

As the years passed, Erik finally got on a regular sleep schedule, and we settled into a satisfying routine. In the mornings, he went to care while I worked; in the afternoons we got to hang out together. I loved cuddling with him when he woke up from his afternoon nap. I loved reading to him when no one else was around. And I loved sharing a piece of fruit and increasingly sophisticated conversation with him during our afternoon snacks. The steady rhythm of our days fooled me into thinking they wouldn’t end.

Yet this week, Erik started full-day kindergarten. My chubby baby has been replaced with a boy with skinny legs and an oversized backpack. Erik is glad to be entering a new, bigger world. I, on the other hand, am struggling with this transition. I pick him up at 3:30 now; much of our free time is lost. Already Erik has told me I don’t need to walk him into school; he can do it by himself. Yesterday, as I watched him walk through the big school doors and navigate the busy hallway, I felt so proud. And then I started to cry.

Thank goodness the business is here, once again, as a salvation of sorts. Interacting with clients and working on projects gives me a focus for my days. My heart still breaks over my son’s relentlessly expanding independence. But as his independence grows, mine does too. And so I’ve scheduled lunches with friends, a new dance class, and more work projects to fill the time when he’s at school. I’m getting used to the idea that this transition may take a while for me to adapt to, but ultimately I’ll find comfort in whatever the new routine will be.

In thinking about what lies ahead, I often find myself looking back. It seems to me that in the past 6 years my baby and my business have grown up together. One thing I know for sure: I’m so proud of them both.

Jennifer King, PhD, ELS, is president of August Editorial, Inc. She can be reached at jking@augusteditorial.com.
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The topic was timely; but, rather than take the easy route of pharmaceutical bashing, William L. Lanier, MD, provided a balanced, objective discussion of the issues, focusing on the positives and negatives that pharmaceutical and medical device companies, as well as physicians, researchers, medical writers and editors, and journal editors, bring to the quality of the indexed medical literature.

“Each month with the new edition [of our journal] I get the first pre-released copy and hold it and inspect it and ask myself, ‘What actions led to the delivery of this fine product?’” Dr Lanier said. In a statistical sense, he noted, “it is highly improbable that all the pieces would come together each issue to make a journal...that is important and credible and received well, and that practitioners use to improve the lives of patients and the general public.”

And yet it does, despite the many minefields that exist today in medical publishing. Dr Lanier spent the rest of his talk walking through such challenges, commenting on the pharmaceutical and medical device industry, investigators and authors, medical writers and editors, and medical journal editors.

On the pharmaceutical and medical device industry
“If you assume that the journals have a bias against you if you touch anything to do with industry,” he said, “you would be correct.” His journal, however, chose a different tactic, outlined in an editor’s note published in 2006 and still in force today, that it could not adhere to its mission without publishing industry-funded research. Dr Lanier wrote that, while there had occasionally been problems

KEYNOTE ADDRESS
Ensuring the Quality and Integrity of the Indexed Medical Literature
William L. Lanier, MD
Editor in Chief, Mayo Clinic Proceedings, and Professor of Anesthesiology, Mayo Clinic, Rochester, MN

By Debra Gordon, MS

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with drug industry-sponsored manuscripts, "the overwhelming majority of problem authors and manuscripts (according to my recollections of more than 7 years of activity) have not involved an identifiable funding source (including drug companies) as the cause of the aberrant behavior. Instead, these moral lapses most commonly appear to be related to ego and greed and authors' desire to acquire or protect academic or clinical 'turf.'"

In his speech, Dr Lanier noted the positives that industry support of research brings, including capital, systems, and facilities to conduct influential high-quality research, and the fact that "many of the brightest minds in all of biomedical research are employed by or affiliated with industry." However, he also noted that the competition for market share and to get products into the marketplace "can lead to shortcuts, biased research designs, intentional deception, and less-than-ideal quality control," all of which can "contaminate" the medical literature and affect its overall quality.

"I want to emphatically state that the better elements of industry don’t need reforming," he said. "They are doing a great job." However, he noted, "the worst elements of industry show little interest in reforming." Thus, "external forces must be brought to bear."

On investigators and authors
The investigators involved with and authors of industry-sponsored research bring to clinical science considerable experience, access to critical patient populations and teams of collaborators, and a near-comprehensive understanding of the important arguments of the day, Dr Lanier said. However, incentives can cloud judgment and hinder an individual’s ability to critically critique a proposal. The incentive is usually not money, however, but having their name associated with something important, something that may change health care. “That’s the bigger hook,” he said, and the threat of being “outed” by industry may drive these individuals to become involved with somewhat questionable practices they wouldn’t otherwise consider.

However, just because physicians and scientists receive payments from industry does not mean the resulting work is not legitimate. “I did drug company studies because they had the cerebroprotective drugs,” said Dr Lanier, who is an anesthesiologist by training. "Not a single grant ever paid parity what it cost to do the research."

On medical writers and editors
The Mayo Clinic and its staff is the third largest contributor to the index of medical literature, Dr Lanier noted, and a third of all manuscripts still go through the institution’s Section of Scientific Publications for vetting by the section’s medical writers and editors. Medical writers and editors provide “clear and concise communication, familiarity with the rules of style and formatting at numerous journals, and an appreciation of the use of accurate, informative figures and tables,” said Dr Lanier, adding that these professionals also “safeguard against authors committing omissions.”

However, there has been some misinterpretation of the role of medical writers and editors when dealing with industry, particularly when investigators and authors “buy into the myth that they are too busy to conduct their own work and you have to do it for them.” Today, even with full disclosure, he said, he still finds numerous incidences of ghostwriting. For instance, he recently received an article in which the disclosure noted that the authors had received editorial support in the development of the outline, draft, assembling tables and figures, collating author comments, copyediting, fact checking and referencing. “We said, ‘What the heck did the nominal author do?’”

And, in fact, the three reviewers assigned to the paper all saw it as slanted and said the author, whom they knew, would never have written the paper in that manner.

On medical journal editors
Finally, Dr Lanier commented on the “authoritative and self-important editors” who can sometimes “confuse the roles of the journal with their own personal agendas.” He highlighted the scientific publications of 2 editors at 2 prominent medical journals who, between them, had more than 225 publications, nearly all of which were editorials, commentaries, or letters. Much of the writing dealt with industry-related conflicts, and the editors had no original scientific publications of their own. “It seems to me they would do well to have more rich life experiences,” he said, to audience laughter.

“If we want good journal editors and leadership, we need ample experience and good judgment,” he said, adding that journals, like corporations, need oversight panels.

In conclusion, Dr Lanier noted: “When the system fails, we all fail. If we goof up, there are fewer critical high-quality articles in print; fewer new drugs and devices approved; fewer treatment options available; less competition and innovation; reduced journal reviewers; less advertising; less need for medical writers and authors; and a lack of trust by those served.”
What’s needed, he said, is an element of détente. Guidelines and regulations on publishing and clinical research need to be simplified with more “common sense.” Otherwise, he said, we may suffer the unintended consequences of this unbridled increase in regulation: the suffocation of clinical research and discovery.

References

Debra Gordon is the president of GordonSquared, Inc., a medical communication company based in Williamsburg, VA.

ALVAREZ AWARD LECTURE

Hands-on Care and the Craft of Writing: Serving the World

Prerna Mona Khanna, MD, MPH
Medical Contributor, Fox Chicago News, and Visiting Clinical Associate Professor, University of Illinois, Chicago, IL

By Mary E. Knatterud, PhD

Barbara R. Snyder, MA, the Milwaukee conference administrator, introduced the “absolutely amazing” recipient of this year’s Walter C. Alvarez Award, which recognizes “excellence in communicating health care developments and concepts to the public.” Snyder noted that Chicago-based Prerna Mona Khanna, MD, MPH, a triple-Board-certified physician and international humanitarian, is equally at home in disaster areas and at inaugural balls, adding that she even won an Emmy for a piece on, of all things, the health benefits of chocolate.

Dr Khanna opened her talk with a video clip of a 2010 trip to Guyana (on the northeast coast of South America), where she delivered medical care to throngs of patients—as well as a wrenching diagnosis to a woman with a terminal genetic disorder. She lamented the transient nature and inherent limitations of such visits, in which a team of experts descends briefly and then leaves; she imagined the people of the visited country quipping “Here come the Americans, there go the Americans.” Her second video clip featured scenes of “bread and butter medicine” in March 2010 in Port-au-Prince, Haiti. Her third video clip showcased the lingering aftermath of the tsunami in Indonesia, focusing on “the line” beyond which devastation still reigns.

Her comments between video clips emphasized her passionate, media-savvy belief in the need to “keep telling the story: a little humanism goes a long way.” She advocates reporting the plight of underserved patients around the world not only via television and the Internet but also via “putting pen to paper.”

In terms of putting pen to checks for fundraising campaigns, her hope is that such donations “not go to refurbish some fancy New York City office” or “to CEO travel costs,” but rather that they actually make a real difference to people in need. She recommended 2 Web sites that can help donors match their interests with reputable, nonmaterialistic organizations: charitywatch.com and charitynavigator.org.

After speaking for 20 minutes, Dr Khanna left an equal amount of time for questions from the audience. In response to a concern raised about how to ensure sustainability and capacity-building, particularly in Haiti after the January 2010 earthquake, she referred to “the story that wasn’t told.” Apparently, Haiti’s medical society remains understandably upset by the loss of paying patients to free foreign volunteers, a loss that put many of the country’s own doctors out of business and made the relative lack of medical infrastructure even worse.

Dr Khanna explained that, now, instead, a team of US physicians is working directly with the ministry of health in Haiti and with its medical society, so that everyone cooperates to help patients without displacing preexisting caregivers. She applauded the mindset of nongovernmental organizations that “do great work” by hiring local
people and by training them with the assistance of international experts, citing as “a great resource” the Guide to Nongovernmental Organizations for the Military, published in Fall 2002 and updated in Summer 2009 by the US Department of Defense (www.fas.org/irp/doddir/dod/ngo-guide.pdf).

Another questioner asked Dr Khanna how she managed to go “from thought to action” in her own career. She replied that she had been living in San Bernardino, CA, when she responded to a call for public health screeners for Kosovo refugees arriving in Fort Dix, NJ. Joining our nation’s official disaster medical assistance team, she has been deployed through that conduit to various trouble spots ever since, in 2-week stints, including to the site of an Alaska Airlines crash and to Ground Zero in Manhattan after 9/11. Her most recent trip was on a Project Hope ship anchored 14 miles off the coast of Surinam.

Dr Khanna stressed that—even though relief efforts inevitably go wrong at times, often hindered by an ongoing lack of raw materials and of onsite equipment—we can’t be top-down about it.” Instead, we must humbly but persistently seek “the 100% cooperation” of local officials, whether in the government or in the medical establishment, she said.

And she indicated that the words we choose matter. She advised use of the transitive verb “offer” when trying to administer aid, as in “can we offer you this?”

Mary Knatterud, a research associate professor in the Department of Surgery at the University of Arizona in Tucson, works from her home in St. Paul, MN.

By Kristina Wasson-Blader, PhD, ELS, CMPP

The 2010 John P McGovern award recipient Thomas Stossel, MD, began by answering the question: Is commercialism in health care sin or salvation? He stated that if the question is approached from religion, the answer is sin, but if the question is approached from science, the answer is salvation. And he firmly believes the answer is salvation.

During his long career in medicine, he has seen “a huge increase in commercial input, following the exponential growth of health care costs.” Over the past 20 years, the amount of funding as well as the complexity of health care has grown. He said he believes it is important to approach the question of the interface between industry and health care with a “devil-in-the-details” approach and not from the 1,000-mile-high perspective on ethics, which has been done and “has been a huge mistake.”

The value of commercialism

Dr Stossel defined value as increasing the longevity and quality of life and said that the value of commercialism was “unequivocally huge.” He supported this with data: cardiovascular mortality rate has dropped by 50%, HIV/
rather from the use of improved tools by physicians.

“And what is especially incredible is that it is so hard to make these advances,” he said. In addition to the immense amount of regulations in this industry, “nature is a bitch; she doesn’t give up her secrets easily,” he explained. Once a compound is identified, it can take 16 years and more than a billion dollars to get FDA approval for a drug because of the large amount of associated risk. This process is also hindered by the overregulation of the industry.

Dr Stossel became interested in allegations of corruption in industry during the 1980s and began educating himself. During the last 5 years, he has been writing and speaking about “conflict of interest” for which he claims there is no satisfactory definition, but he describes it as a case of risks eclipsing benefits.

He described the “3 flavors” of allegations: “One is a company exists in a moral universe that is separate from health care medicine and companies are allowed…to lie, cheat, and steal in the interest of profit…the second is that once a researcher or clinician accepts anything in terms of payment in money or time from a company, they are biased…and a third allegation is that it is fundamentally unethical to be viewed as being in bed with business.”

The number of adverse events resulting from allegations of corruption, according to Dr Stossel, is small; some result from failure to disclose, but the large corporate settlements on which the media like to report have resulted from a flawed system. If an attorney general files suit against a company for marketing off-label uses for a drug, which is illegal in the United States, and the company loses in court, the result would be debarment for the company, meaning that the company can no longer do business with the federal government—no Medicare, no Medicaid for any of the company’s products. Thus, the companies have to settle; “they always settle,” according to Dr Stossel. But individuals who get indicted in these cases don’t care about debarment, they care about their reputations; these individuals who have fought have won in court.

Dr Stossel also described a recent article in The New York Times that claimed bias in continuing medical education but did not report any factual evidence to support the claim. He added that critics tend to use, what he calls, “irrelevant evidence and false evidence.”

The mother of false evidence
Dr Stossel provided an example: an article by Brennan et al (2006) was the “mother of false evidence”; it was written by authors who had “contributed nothing to medical innovation; few were in positions of authority; most don’t practice medicine.” He highlighted a statement from the article: “The systematic review of medical literature by Wazana found that an overwhelming majority of interactions had negative results on patient care.” But, when Dr Stossel reviewed the Wazana paper, he found an explicit statement indicating that no patient outcome data were analyzed. Thus, Dr Stossel alleged that the Brennan paper falsified data, which is a criterion for scientific misconduct, but he has found no report of a retraction for this paper in the 4 years since its publication.

Ghostwriting, a “favorite” among medical writers
Next, Dr Stossel turned to a favorite, hot topic among medical writers: ghostwriting. He said that “ghost bullies” have blurred the definition of ghostwriting by defining in advance who should be an author, and he claims that the cost of such policies are serious. High compliance costs have contributed to declines in education and, ultimately, innovation.

Medicine as a business
According to the American Association of Medical Colleges, 80% of revenues from academic health centers come from clinical services, yet, Dr Stossel said that “claiming medicine is not a business is insane.” He just wants the playing field level; “treat industry the same way we treat ourselves,” the physicians.

Dr Stossel concluded by affirming that commercialism has been a benefit to medicine, and “the corruption allegations are a joke.” He said he thinks the pharmaceutical industry is being run by lawyers, and he provided the cautionary advice to those lawyers: Think about their quality of life if pharmaceutical agents to improve their lives don’t make it to market.

References

Kristina Wasson-Blader is a medical writing and editing consultant and owner of KWB Health Communications, Inc. in Edmond, OK.
IT’S ALL ABOUT STYLE

Moderator
Sue Hudson
Medical Writing Associates, Simi Valley, CA

Speakers
Cheryl Iverson
Managing Editor, Archives Journals, JAMA/Archives Journals, and Chair, AMA Manual of Style Committee, Chicago, IL

Devora Krischer, ELS
Consulting Medical Editor, CVS Caremark, Scottsdale, AZ

By Yanni Wang, PhD

The speakers at this session highlighted the new and upcoming features of 3 style manuals: the American Medical Association Manual of Style (AMA Manual); Scientific Style and Format: The Council of Science Editors Manual for Authors, Editors, and Publishers (CSE Manual); and the Publication Manual of the American Psychological Association (APA Manual). The speakers also addressed the main differences between the manuals and answered questions at the end of each presentation.

AMA Manual
The AMA published the 10th edition of its style manual in 2007 and launched the online version in 2009. Cheryl Iverson focused on the online version and the launch of a personalized version, called “My Style,” which was added to the online version in early 2010. The personalized version allows users to save up to 15 searches; bookmark favorite sections; and annotate words, phrases, or sections of the manual. Iverson noted several advantages of the online version.

• Powerful searching function, better than any index
• Convenience for editors to correspond with authors and explain style policies by cutting and pasting
• Updates every month with style quizzes, Word Corner, and Editor’s Tip
• Errata corrected promptly
• Online Q&A

Iverson encouraged the audience to explore the online version, think about what’s useful to them, and let the committee know what they’d like to see added or what topics they’d like to see addressed in the quizzes, Word Corner, or Editor’s Tip—or in the manual itself. She noted that manuals will always grow and the online version allows its users to grow together.

Iverson also discussed plans for 2011, which includes updates on the ICMJE conflict-of-interest form, revised policies for online advertising, and a social media presence.

CSE Manual
Devora Krischer, ELS, highlighted the main topics covered in the 4 components of the 7th edition of the manual: publishing fundamentals, general style conventions, special scientific conventions, and technical elements of publications. She also pointed out the new elements included in the manual, which include the following:

• Responsibilities of authors, editors, and peer reviewers
• Copyright requirements and practices
• Electronic and print publication of books and journals
• British and American styles

Krischer noted that the 7th edition is now subject-focused because the boundaries between disciplines are dissolving.

Differences between the CSE and the AMA Manuals
Krischer also discussed some differences between the CSE and AMA manuals. She said that the CSE manual covers a broad range of sciences, from astronomy and physics through chemistry and medicine, whereas the AMA manual focuses on medicine. Another difference is in the style of statistical presentation; for example, the CSE manual uses zeros before decimals (e.g., $P = 0.05$) but the AMA manual does not (e.g., $P = .05$). Krischer added that the CSE manual is the perfect study material for the Board of Editors in the Life Sciences (BELS) exam.

An audience member asked whether testing on styles is a feature of the medical writing certification exam. Krischer suggested following the target journal’s guidelines. Iverson suggested that author’s editors should follow ICMJE’s rules when the target journal is not defined.

APA Manual
Because the invited speaker was unable to make it to the conference, Hudson briefly talked about the APA manual. She encouraged the audience to share their knowledge, and she suggested that those who were interested in buying the manual should buy the second printing of the new edition because the first printing has many errors that have been corrected in the second printing.

According to Hudson, the APA manual’s chapters are similar to those in the AMA and CSE manuals. She noted that the manual has a useful Web site that includes free tutorials, online courses, and supplements.

An audience member asked whether testing on styles would be a feature of the medical writing certification exam. Krischer, who is involved in AMWA’s certification taskforce, said that the exam has not yet been developed and asked the audience for input. The speakers and the audience agreed that there are sometimes no rights and wrongs regarding style, and they therefore do not think the test should include style questions. The key, an audience member stressed, is to know where to look for needed information. Iverson added that she preferred testing to be focused on clarity and consistency.

The session ended with 3 participants each winning a copy of one of the style manuals in a raffle.

Yanni Wang is an independent writer in Maryland.
RISK EVALUATION AND MITIGATION STRATEGIES 101

Moderator
Heather A. Haley, MS, CMPP
Medical Writer, Haley Writing Solutions LLC, Cincinnati, OH

Speakers
Kevin Flynn, MA
Director, Scientific Communications, Analgesic Solution, Natick, MA

Marilyn Whiteley, PharmD
Director, Writing and Editorial Services, PPD, Morrisville, NC

By Jacqueline Wu, PhD

The Food and Drug Administration Amendments Act of 2007 (FDAAA) gave the US FDA the authority to require a Risk Evaluation and Mitigation Strategy (REMS) from manufacturers to ensure that the benefits of a drug or biologic product outweigh its risks. This session provided an introduction to REMS and the opportunities they present for medical writers.

In the first part of the session, Kevin Flynn, MA, provided an overview of REMS and described its different elements (Table 1). The FDA can require a pharmaceutical company to include one or more of these elements for any drug or biologic product for which the FDA considers a REMS necessary. REMS may be required as part of a New Drug Application (NDA) or Biologic License Application (BLA), or for products that have already been approved and marketed.

To date, REMS have been approved for more than 150 drugs and biologics. For the majority of these REMS, only a medication guide was required, but 43 also required a communication plan, and 23 required 1 or more of the 6 “elements to assure safe use” (ETASU) (Table 1). The requirements of the ETASU can be extensive and can impose a substantial burden on patients and on health care organizations. For example, prescribers and store pharmacy representatives may need to be trained and enrolled in a training database; prescribers need to complete patient enrollment forms, review them with patients, and send the forms to a REMS training database administrator; pharmacists at certified stores need to verify that the prescriber and the patient have been trained; and pharmaceutical companies need to build these databases and systems, and then report to FDA on their effectiveness.

In the second part of the session, Marilyn Whiteley, PharmD, described the opportunities for medical writers in preparing REMS and their associated documents. The diversity of materials required, the size of REMS programs, and the need for consistency and clarity all make the REMS field a good opportunity for medical writers. The types of documents required for REMS include submission materials and reports for the FDA and drug companies; training materials, continuing education, and surveys for physicians and pharmacists; and educational materials, agreement forms, and surveys for patients.

Writers and editors with experience in these fields, as well as those with medical, clinical, regulatory, epidemiology, and health statistics backgrounds, can all find an outlet for their skills in preparing REMS. Other related skills, such as program management, Web design, and graphic design are also valuable for medical writers working on REMS.

Dr Whiteley suggested that there are several ways in which medical writers can position themselves to take advantage of the opportunities with REMS work. Writers should educate themselves about REMS by visiting the FDAAA Web site (see box), recognize the skills they already have and how they can be used in the REMS field, look for training to fill the gaps in their knowledge, and market themselves to let potential clients know their skills in this important emerging field.

Jacqueline Wu is freelance writer and owner of Castle Peak Medical Writing in Tucson, AZ.

Table 1. Elements of a Risk Evaluation and Mitigation Strategy (REMS)

| 1 | Medication guide |
| 2 | Communication plan |
| 3 | Elements to Assure Safe Use (ETASU) |
| A | Health care providers who prescribe the drug must have particular training or experience, or be specially certified |
| B | Pharmacies, practitioners, or health care settings that dispense the drug must be specially certified |
| C | The drug must be dispensed to patients only in certain health care settings, such as hospitals |
| D | The drug can only be dispensed to patients with evidence or other documentation of safe-use conditions, such as laboratory test results |
| E | Each patient using the drug must be subject to monitoring |
| F | Each patient using the drug must be enrolled in a registry |

ADDITIONAL INFORMATION ABOUT REMS

REMS plan template

Questions and answers on REMS

Approved REMS
Larenda M. Mielke, MA
Instructor, English Language Programs,
Washington University, St. Louis, MO

By Mary E. Knatterud, PhD

Larenda M. Mielke, MA, highlighted what makes the Discussion section of a medical journal article work most effectively and efficiently. Mielke has taught at 8 different universities and is now at Washington University, where she works with students from numerous countries around the world.

Mielke began by asking which section of a hypothesis-driven research article readers go to first. Acknowledging that the Abstract is often the only part that gets noticed, she pointed out that readers familiar with the field of a given article generally look over the Results section first. But the Discussion section is key for readers who want to put the study’s implications into perspective. It should highlight both the newness and the importance of the study’s findings. According to Mielke, it is the hardest section to write—and to get right.

The Discussion section, Mielke said, should begin by answering the question the study sought to answer, and then briefly explain and defend that answer. Opening lines (and verb tenses) that work well include “This study shows that...” (present tense); “In this study, we have shown that” (present perfect tense); and, perhaps most commonly, “We found that...” (past tense). She advised against overblown claims such as “This is the first report of...”; it is wise to add a quick hedge like “To our knowledge, this is the first report of...” instead.

The body of the Discussion section should compare and contrast the study’s main take-home points with those of previous studies, whether by the same authors or others. Limitations of the study should be addressed straightforwardly but succinctly. Mielke favors the judicious use of transition words and phrases (e.g., “Surprisingly,” “Interestingly,” and “In addition,”) but cautioned against beginning every sentence with one. She added that somehow setting the stage upfront is usually helpful (e.g., “In reviewing the literature, we found no data on...”). She emphasized keeping a sentence’s subject and verb close together, if possible, and placing the most difficult or important material at the end of the sentence.

The end of the Discussion section should leave the reader knowing why the study matters. In the words of one of the attendees during the question-and-answer period, the closing sentences of the section are like “the wrap-up of an attorney to a jury” or the culmination of “a salesperson’s pitch.”

Mary Knatterud, a research associate professor in the Department of Surgery at the University of Arizona in Tucson, works from her home in St. Paul, MN.
This year’s Harold Swanberg Distinguished Service Award was presented to Marianne Mallia, ELS. The Swanberg Award is given to an active member of AMWA who has made distinguished contributions to medical communication or rendered unusual and distinguished service to the medical profession.

“I am seldom speechless, but I was when I learned that I was this year’s recipient of the Swanberg Award, and I have only somewhat recovered. I am truly grateful and honored,” said Marianne.

Marianne began holding leadership roles in AMWA at both the chapter and national levels soon after she joined the association in 1979. As AMWA President in 2002-2003, Marianne proposed that AMWA establish a permanent endowment fund to ensure the financial future of the association. Her efforts, combined with those of the Budget & Finance Committee, were rewarded when the Endowment Fund became a reality in 2004.

The breadth of Marianne’s contributions to medical communication is remarkable. She has contributed mightily (for 35 years!) to the publication efforts of the prestigious Texas Heart Institute. She has educated other medical writers by teaching workshops at the AMWA annual conference, every year for 24 consecutive years, and at numerous regional and chapter conferences. Her talent as a teacher was formally recognized by AMWA in 1998 when she received the Golden Apple Award. She manages a department of writers and editors with more than 100 cumulative years of experience. She is an advocate for professionalism and has set the standard for her staff by asking that they all become AMWA members and obtain AMWA certificates and BELS certification. She has also mentored less experienced medical writers into AMWA leadership roles as chapter officers, Board members and Executive Committee members, and workshop leaders.

The Swanberg Award, the highest that AMWA confers, is named in honor of Harold Swanberg, the physician who founded our organization in 1940.

Marianne’s Swanberg Address, “Demons and Idols… and a Blue Corvette,” will be published in the March 2011 issue of the AMWA Journal.

Several awards are presented during each annual conference, and this year, 10 individuals were honored at the Sablack Awards Dinner. Included here are brief biographies of 8 award recipients; details on the recipients of the AMWA Student Scholarships and the Eric Martin Awards are scheduled for the March 2011 issue of the AMWA Journal.

The Golden Apple Award, given to recognize excellence in teaching, was presented this year to Mary E. Knatterud, PhD. After reviewing a strong field of candidates for the award, the AMWA Education Committee unanimously chose Dr Knatterud. In her multifaceted and long career as a teacher—a career carried out in the classroom, in publications, in editorial settings, and in workshops for health care workers and medical writers—she has consistently modeled good writing and editing practice, high ethical standards, and a unique combination of imagination and penetrating insight into the meanings of texts, all carried out with infectious enthusiasm and energy.

Mary is a research associate professor in the Department of Surgery at the University of Arizona in Tucson. Previously, she worked at the University of Minnesota in Minneapolis for 30 years, the last 21 years in the Department of Surgery, rising to associate professor and senior research associate.

Her 1997 doctoral dissertation, “First Do No Harm: Empathy and the Writing of Medical Journal Articles,” was...
Three outstanding AMWA members have been chosen as AMWA Fellows for 2010: Lori L. Alexander, MTPW, ELS; Judith M. Pepin, PhD; and Victoria J. White, MA, ELS. This designation is one of AMWA’s highest honors. As specified in the Bylaws, fellowships are awarded to AMWA members in recognition of their substantial contributions to the goals and activities of AMWA, and for professional accomplishments that have been recognized by their peers. Fellows may be recommended by other members; they are nominated by the Fellowship Committee and approved by the Board of Directors.

Lori Alexander, of Orange Park, FL, is well known to members as Editor of the AMWA Journal, a post she has held since 2002. In this position, she leads approximately 60 volunteer writers, editors, reviewers, and proofreaders to produce the quarterly peer-reviewed Journal. Her winning team was recognized in 2009 with a Bronze EXCEI Award for General Excellence by the Association Media and Publishing (formerly Society of National Association Publications [SNAP]). In 2010, she initiated the AMWA Journal blog. A member since 1999, Lori has been an officer and conference organizer for the Mid-Atlantic and Florida Chapters. She has contributed her time and talent to annual conferences since 2002, leading breakfast roundtables and workshops, recruiting roundtable leaders, and coordinating annual conference open sessions. In 2010, she led 2 workshops: the new credit workshop that she developed, Using Classical Rhetoric Principles to Enhance Medical Writing, and Elements of Medical Terminology. Lori’s unflagging efforts on AMWA’s behalf were recognized in 2009 by then-President Cindy Hamilton, PharmD, ELS, who selected her as the recipient of the President’s Award (AMWA J 2009;24(4):211). Lori holds a bachelor’s degree in English (journalism) from the University of New Hampshire and a master’s degree from Northeastern University in professional and technical writing, with a concentration in medical writing. She is president of Editorial Rx, a Florida-based medical writing and publishing company.

Published by Routledge (New York and London) in 2002. Her work on medical communication has also appeared in Annals of Emergency Medicine, Archives of Surgery, Science Editor, the AMWA Journal, Obesity Surgery, JAMA, Transplantation, Dialysis & Transplantation, and Minnesota Physician, among other publications.

An AMWA Fellow (as of 2000), Knatterud received the President’s Award in 2002. At the national annual conference, she regularly teaches workshops on medical punctuation and syntax; she also leads roundtables on miscellaneous literary topics (eg, Emily Dickinson’s poetry, the Pulitzer-winning play Wit, Nathaniel Hawthorne’s short stories, Eugene Field’s mournful poetry, Margaret Mitchell’s Gone with the Wind, and Harriet Beecher Stowe’s Uncle Tom’s Cabin, or, Life Among the Loudy). She has held numerous administrative posts within AMWA at the national level, including Special Interest Sessions Coordinator, Plenary Chair and Moderator, Education Committee member, Swanberg Award Committee member, and Fellowship Committee member. She has also held several chapter-level positions, including president, vice president, program committee chair and member, and book club founder and coordinator. Mary is also an active member of the Conference on College Composition and Communication (4Cs) and the Council of Science Editors (CSE). In 2006, she became the founding poetry editor of the CSE journal Science Editor; she named her newly launched column “Peer-Renewed.”

Mary earned her BA (summa cum laude) in English and Spanish at Concordia College, Moorhead, MN, in 1974; her MA (4.0 GPA) in English at the University of Minnesota, Twin Cities, in 1979; and her PhD. (4.0 GPA), also in English, at the University of Minnesota, in 1997. She and her husband, twin sons, and daughter live in St. Paul.
Judith (Judi) Pepin, of Mason, OH, is best known as AMWA’s Treasurer, overseeing the association’s finances and explaining them to Journal readers since 2007. An AMWA member since 1996, she has demonstrated leadership and service at both the chapter and national levels. She was tapped to serve as Treasurer and Secretary of the Ohio Valley Chapter in 2000 and held that position until 2008. Judi represented the Ohio Valley Chapter as a delegate to the Board of Directors from 2003 through 2006, served on the Budget & Finance Committee from 2003 through 2007, and was Administrator of Development on the Executive Committee in 2006-2007. She also served on the Web & Internet Technology (WIT) Committee (2005-2006) and the Task Force on Nonmember Publications (2007-2008). At annual conferences, Judi led coffee klatches, first in 2008 and again in 2010 (“Making a Difference: Volunteer Opportunities With Your Pet”). (Hint: ask her about her pug Bella.) Judi has master’s and doctoral degrees in pharmacology and toxicology from the University of Connecticut School of Pharmacy and a bachelor’s degree in biochemistry from Smith College, and did postdoctoral work at Cleveland Clinic. She is a senior medical writer at Procter & Gamble in Mason, OH, where she has worked since 1990.

Victoria (Vicki) White is familiar to many AMWA members as a champion of new technology. She joined AMWA’s Florida Chapter in 1999, and was soon chosen to be President-elect. She served as a Florida Chapter office or delegate to the Board of Directors from 2001-2004. Annual conferences in 2001, 2002, 2006, 2007, 2008, 2009, and 2010 benefited from Vicki’s willingness to help, where her roles included open session moderator, open session section chair, roundtable leader, and posters committee member. In 2009, she coordinated AMWA’s first annual conference blog. In 2010, she again coordinated the blogging effort and gave a presentation titled “Can Authors’ Editors Be a Journal’s Best Friend?” in an open session on the value of medical writers and editors in peer-reviewed publishing. She has also served on the Executive Committee as Chapters/Membership Administrator and in other national service roles, including Chair of the Chapter Revitalization Task Force and Membership Committee and member of the WIT Committee, Public Relations Committee, and Journal Editorial Board. A former newspaper reporter, Vicki has a bachelor’s degree in English from Tufts University and a master’s degree in political science from American University. Vicki has been employed as Managing Editor for Manuscript Production of Psychosomatic Medicine: Journal of Biobehavioral Medicine since 2002, first with the University of Florida and now with Emory University. She lives in Tampa, FL.

The 2009-2010 fellowship committee, chaired by Sue Hudson, included Susan Aiello, DVM, ELS; Jim Cozzarin, ELS; Mary Royer, MS, ELS; and Michele Vivirito.
The 2010 recipient of the President’s Award is Christine Wogan, a long-time AMWA member and past president of the Southwest Chapter. The President’s Award is given to someone who has made noteworthy contributions to the organization, has been a member of AMWA for at least 10 years, and has never served on AMWA’s Executive Committee.

Chris has served AMWA at both the chapter and national levels. She has served the Southwest Chapter on its board of directors and as an officer, holding the office of treasurer for 8 years and serving as its president in 2005–2006. Her involvement in the Southwest Chapter has spanned the terms of more than 16 chapter presidents! Chris has been an open session organizer and presenter, as well as a workshop and roundtable leader, at several AMWA annual conferences. She has also served on AMWA’s Budget & Finance Committee.

As so many of us do, Chris came to full-time scientific editing and writing somewhat indirectly. Trained as a scientist and planning on following in her professor father’s footsteps, she discovered a knack for scientific writing during a break between undergraduate school and the next step—an MD/PhD program in the then-brand-new field of molecular genetics. Back home in Boston with a bachelor’s degree in biology from Swarthmore College, she went to work with a professor at MIT who spent much of her time writing (and winning) grant proposals in neuropsychology. Through this and a subsequent job with a physician-scientist in neurology, Chris came to realize that the fun, for her, was in the writing—developing scientific ideas into persuasive research proposals and communicating findings from the bench, or the bedside, to other scientists. That realization led her to postpone further academic training and establish a part-time business editing research grants and contract proposals in the neurosciences in the greater Boston area. She met her husband there, when he hired her to help him write one of those proposals, and in 1987 they moved to Houston so that he could fulfill one of his lifelong dreams—to work in the space program.

After a brief period of “culture shock” in the transition from Boston to Houston, Chris also went to work at NASA’s Johnson Space Center, writing science plans and other documentation for a new exercise physiology lab and then later becoming an author’s editor for members of the Medical Sciences Division. At that time, the work focused on preparing astronauts for prolonged missions aboard the Space Shuttle and later the International Space Station, and encompassed disciplines ranging from chronobiology to environmental safety. She was also extremely fortunate to be able to participate in a large project documenting the history of space biology and medicine in both the US and Russian space programs, a project that involved several trips to Russia.

In 1998, Chris left NASA for a position as Scientific Editor with the Department of Scientific Publications at MD Anderson Cancer Center, where she spent 9 years providing developmental and substantive editing in basic and clinical research disciplines related to oncology, in addition to managing journals and textbook updates and training junior editors. In 2007, she joined the Division of Radiation Oncology at MD Anderson as a full-time publications program manager. In that role, she has continued to expand her scope to encompass teaching residents and fellows, editing seminal works in radiation oncology and radiation physics, and, recently, managing the journal *International Journal of Radiation Oncology Biology Physics*.

AMWA is fortunate to count Chris Wogan among its ranks. Her commitment to the organization and many volunteer contributions exemplify how dedication and professionalism can advance goals and translate vision into reality.

All photos on pages e1–e12 by Constance Jackson (www.cjacksonphotography.com).
Medical communicators often lead multicultural writing teams. Within these teams, medical communicators play many roles; in addition to writing, they manage timelines, resolve questions from collaborators, coordinate reviews, facilitate discussions among writing team members, and anticipate roadblocks to meeting project deadlines. Unfortunately, miscommunications or unexpected delays can occur when collaborators from different cultures have different perspectives, make different assumptions, or employ different working styles. Therefore, being aware of cultural influences on collaborators’ actions and business practices and being able to adapt one’s work style appropriately can be invaluable for making a project team’s interactions more successful.

Culture can be defined as the ideas, beliefs, and customs that are shared and accepted by people in a society, be it a country, region, social class, company, or school. Like an iceberg, a culture may feature behaviors and practices (eg, its arts, dress, cooking, music, and literature) that are readily apparent above the surface, while its many attitudes and beliefs (eg, about leadership, problem solving, superior/subordinate relationships, and group decision making) may lie hidden underneath.1

In this report, we contrast the communication styles and behaviors of 2 cultures often considered to be opposites—the United States and Japan, provide examples of how cultural misunderstandings may negatively affect medical writing projects, and offer practical advice for avoiding such pitfalls and working more effectively across cultures.

We evaluated some behaviors consistent with the communication styles typical of the United States and Japan, the messages these behaviors are meant to convey, and the unintended messages these behaviors might send to someone from the other culture,2 and then noted an example of each behavior that could be experienced by members of crosscultural medical writing teams (Tables 1 and 2). Clearly, opportunities for cultural misunderstandings abound, as do the potential negative consequences for building relationships and trust among collaborators, for reaching agreement on the content of documents or on issues such as authorship, and for effectively managing project teams and timelines.

What can medical communicators do to minimize crosscultural misunderstandings, gain the respect of their collaborators, and work more effectively across cultures?

**Be Accountable and Act Professionally**

First, medical communicators should continually hold themselves accountable and act professionally when dealing with collaborators. All cultures value such behavior. Making an effort to respect and understand other cultures can help forge even stronger, more trusting relationships among crosscultural team members and build successful and effective partnerships. Stronger relationships can in turn make writing teams more cohesive and help team members forgive any cultural faux pas that do occur.

**Enhance Cultural Awareness**

Medical communicators should alter their own outlook on other cultures through reading, training, or talking to trustworthy people from that culture and then adapting their work styles, as far as possible, in ways that show respect for the other culture.2 One way to do this is by “mirroring” the communication behaviors of a colleague from another culture; that is, copying gestures, body language, choice of words, or writing style. For example, an American medical communicator working with Japanese collaborators can continue to assertively manage a project but speak less directly and more formally than they would with American collaborators. Conversely, Japanese medical communicators working with American collaborators can continue to communicate formally while becoming more comfortable with speaking in a direct manner.

**Promote Clarity and Understanding**

Medical communicators can promote clarity, understanding, trust, and respect in both written and spoken
communications through a variety of ways, such as the following.

- Listen actively.
- Ensure that conversations are not one-sided.
- Avoid interrupting when another is speaking.
- Speak slowly, pause frequently, and keep sentences short.
- Avoid the use of slang, idioms, acronyms, and abbreviations.
- Don’t rush to judge others’ meanings or intentions.
- Check for understanding after any meeting or team communication by asking collaborators to review and comment on minutes.

There are other tips for communicating across cultures electronically (eg, telephone, voicemail, e-mail, or fax). These tips are actually important for promoting clarity and understanding in all electronic communications, but especially so when collaborators may have different expectations, have never met in person, or speak different native languages (Table 3).²

<table>
<thead>
<tr>
<th>Style</th>
<th>Accompanying Behaviors</th>
<th>Intended Messages</th>
<th>Unintended Messages</th>
<th>Example in Medical Communication Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>High context</td>
<td>• Speaking specifically</td>
<td>• Providing all the necessary information</td>
<td>• Treating others as children</td>
<td>An American medical writer explains a detailed manuscript outline to his writing team; the Japanese physician feels the content is obvious and does not need to have this explained to him in detail.</td>
</tr>
<tr>
<td>Analytical</td>
<td>• Asking “why”</td>
<td>• Wanting as much information as possible to make the best decision</td>
<td>• Not trusting others</td>
<td>An American physician requests to see the data before making a revision suggested by the Japanese medical writer.</td>
</tr>
<tr>
<td>Assertive</td>
<td>• Using the pronoun “I”</td>
<td>• Being an individual</td>
<td>• Being self-centered, arrogant, or pushy</td>
<td>An American medical writer asserts her opinion strongly to Japanese physicians during a protocol kickoff meeting.</td>
</tr>
<tr>
<td>Direct</td>
<td>• Getting straight to the point</td>
<td>• Wanting to get as much as possible accomplished</td>
<td>• Not allowing others to provide input</td>
<td>An American physician sends the Japanese medical writer a terse e-mail that focuses only on work issues; the e-mail seems rude to the Japanese medical writer.</td>
</tr>
<tr>
<td>Informal</td>
<td>• Displaying casual behavior</td>
<td>• Being friendly</td>
<td>• Being disrespectful</td>
<td>An American medical writer calls a Japanese physician by his first name, instead of his last name plus “-sensei,” as is the Japanese custom.</td>
</tr>
<tr>
<td>Spontaneous</td>
<td>• Brainstorming</td>
<td>• Wanting to have many good ideas from which to choose</td>
<td>• Not being thoughtful or reflective</td>
<td>A group of Americans on the writing team brainstorm ideas for new analyses at a planning meeting, while the Japanese team members wait quietly for the Americans to finish talking.</td>
</tr>
</tbody>
</table>

Table 1. Behaviors Consistent with the Communication Styles Typical of the United States²

Get to Know Individual Collaborators

Although culture may appear to predominate in cross-cultural collaborations, it is important to remember that those same collaborators are individuals within their own culture; not all individuals will necessarily fit cultural stereotypes. Through relationship building, medical communicators can get a better sense of the individuals with whom they are working.

By appreciating cultural differences and methodically minimizing cultural misunderstandings, medical communicators can more effectively lead their multicultural writing teams toward the ultimate goal, the disclosure of important scientific information to regulators, physicians, or patients.

References

### Table 2. Behaviors Consistent with the Communication Styles Typical of Japan²

<table>
<thead>
<tr>
<th>Style</th>
<th>Accompanying Behaviors</th>
<th>Intended Messages</th>
<th>Unintended Messages</th>
<th>Example in Medical Communication Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low context</td>
<td>• Implying messages • Using few words</td>
<td>• Willing to listen to others • Not treating others as children</td>
<td>• Not willing to explain topics in detail</td>
<td>A Japanese physician relies on body language to express what he wants to say, but the American medical writer does not understand his true meaning.</td>
</tr>
<tr>
<td>Intuitive</td>
<td>• Conveying feelings</td>
<td>• Showing the importance of relationships</td>
<td>• Unclear opinion • Wasting time</td>
<td>A Japanese medical writer sends an e-mail with many greetings and terms of respect to an American physician, who thinks reading this extra text is a waste of his time.</td>
</tr>
<tr>
<td>Harmonious</td>
<td>• Apologizing, apparently without reason • Rarely disagreeing, speaking first, or interrupting</td>
<td>• Polite • Building consensus</td>
<td>• Showing weakness • Causing problems by asking questions or disagreeing only at the end of the conversation</td>
<td>A Japanese medical writer says “I’m sorry” when interrupting during a publication meeting; his meaning is “Excuse me,” but the American physician interprets his apology as a sign of weakness.</td>
</tr>
<tr>
<td>Indirect</td>
<td>• Speaking ambiguously • Making little eye contact</td>
<td>• Maintaining harmony</td>
<td>• Not providing the necessary details • Being evasive • Being shy or passive</td>
<td>A Japanese medical writer makes little eye contact with an American physician, so the physician feels that the writer is shy and cannot capably lead the project.</td>
</tr>
<tr>
<td>Formal</td>
<td>• Displaying formal behavior • Doing things in set ways</td>
<td>• Respectful of people • Respectful of traditions</td>
<td>• Uptight • Taking too long to make decisions or take action</td>
<td>A Japanese medical writer working for a pharmaceutical company wants to meet face-to-face with a Japanese thought leader to discuss manuscript comments; the company physician believes that such a meeting would not be appropriate, since the medical writer is lower in hierarchy than the Japanese thought leader.</td>
</tr>
<tr>
<td>Disciplined</td>
<td>• Preparing thoroughly • Paying attention to details</td>
<td>• Reflective • Thoughtful</td>
<td>• Being unwilling to listen to others’ opinions or ideas since one’s mind is already made up</td>
<td>Before a project kickoff meeting, a Japanese physician prepares a list of the analyses he wants to include, rather than brainstorming ideas with the writing team during the meeting.</td>
</tr>
</tbody>
</table>

### Table 3. Communicating across Cultures Electronically²

<table>
<thead>
<tr>
<th>Telephone/Voice Mail</th>
<th>E-mail/Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Arrange teleconferences in advance. • Send an agenda for teleconferences ahead of time by e-mail. • Identify yourself when speaking during a teleconference. • Articulate clearly.</td>
<td>• Acknowledge receipt of requests immediately. Even if you are unable to respond fully at the time, indicate when you will be able to respond fully. • Keep messages concise. • Label or enumerate your points. • Summarize the main points and action steps at the end.</td>
</tr>
</tbody>
</table>
Genetic Rounds: A Doctor's Encounters in the Field that Revolutionized Medicine
Robert Marion, MD
New York: Kaplan Publishing, 2009; 278 pp

Genetic Rounds: A Doctor's Encounters in the Field that Revolutionized Medicine is a collection of 16 engrossing and thought-provoking essays that describe the author's experiences and lessons learned as a pediatric geneticist at Montefiore Medical Center and Blythedale Children's Hospital in New York. Dr Marion likens his occupation to that of a “medical detective” for patients with rare genetic secrets, and he, the sleuth, relies on gathering evidence from subtle signs and symptoms, sometimes seemingly unmatched puzzle pieces, to precisely identify each patient's diagnosis. Importantly, Marion makes these rare medical conditions, such as osteogenesis imperfecta, trisomy 13, spinal muscular atrophy, Marfan syndrome, and Sanfilippo syndrome, understandable and intriguing for lay readers.

Dr Marion bravely and quite candidly shares how his patients and their cases have shaped who he is as a physician and as a person, cases that have changed and remolded his moral philosophy on medicine and life. For instance, he tells the story of when he was on call during a particularly difficult night shift as a junior resident on his birthday. Boiling with resentment for being overworked and tired, he admits thinking even the critically ill infants in the neonatal intensive care unit were “nothing more to me than inanimate objects.” Twenty-five years later, he discovers that one of the infants from the unit who passed away that night, despite rounds of resuscitation from the attentive medical staff, was his current neighbor's child. This lesson reinforced to him the critical point that each patient is a human life with a network of family members and friends.

Genetic Rounds is an excellent and informative book for all readers, although expectant parents may want to read with caution and a box of tissues. This book is particularly relevant for undergraduates interested in pursuing a career in genetics and/or medicine. Likewise, medical students interested in the field of clinical genetics and pediatrics will benefit from Marion's brutally honest account of the emotional demands, necessary bedside manners, and rigorous scientific acumen required in the life of a physician and patient advocate.

—Barb A. Schreader, PhD
Barb is a scientific and medical writer in Boca Raton, FL.
the textbook offers the expected mainstay coverage of disease pathophysiology and management, it does not neglect some of the pertinent and evolving concepts of our time, such as the so-called medical home, electronic health records, system-based continuous quality improvement, and legal and environmental issues. The foreword asserts, “The practice of pediatrics is constantly changing.” Thus, I am most pleased that this text is also offered in electronic format at Pediatric Care Online (www.pediatriccareonline.org).

Elements that are very spot-on in the book are the well-organized tables, visual callouts on “When to Refer” and “When to Admit,” and links to specific AAP Policy Statements and related Web sites. A unique bonus is the companion manual, Tools for Practice, that includes over 200 of the most frequently used calculators, symptom questionnaires, documentation forms, algorithms, and patient education materials. Such tools enable clinicians to improve their practice of patient-centered, measurement-based care that is advocated by numerous groups involved in health practice reform, such as the Institute of Medicine, the American Medical Association, the Accreditation Council for Graduate Medical Education, and the Accreditation Council for Continuing Medical Education.

For practicing clinicians, this textbook is the ultimate one-stop reference for clinicians who provide frontline care to children and adolescents. The fact that it is an AAP publication and its contributors are experienced clinicians nationwide makes this book appealing and compulsory reading for anyone interested in the field of pediatrics.

For medical writers and editors, this textbook is nurturing for the mind and instructive for a broad readership. It, and its companion manual of clinical practice tools, uniquely advises the medical communicator/journalist on current best practice for our youngest population of patients.

—Monique D. Johnson, MD, CCMEP

Monique is a full-time medical writer/instructional designer of certified medical education with a Rockville, MD-based medical education company.

Beyond Forgetting: Poetry and Prose about Alzheimer’s Disease
Holly J. Hughes, Editor
Kent, OH: Kent State University Press, 2009; 247 pp

Beyond Forgetting is not a science book. It merits distinction as Honorable Mention in the category of Public Health Consumers Books because it illuminates the personal impact of Alzheimer’s disease on caregivers as well as the family members who are affected by it. Almost any reader will find his or her personal experience mirrored in the “honest, deeply moving, and compassionate portrayals” gathered here.

In 12 sections, thematic material is presented that encompasses the whole range of experiences. A good place to start is the poem “Verbal Charms,” by Melanie Martin, about how a loved one, in this case the author’s great-aunt, may be perceived to “disappear”; as Alzheimer’s takes over, it erases everything familiar about the person.

Especially noteworthy is the foreword by Tess Gallagher. Famously married to Raymond Carver, Gallagher writes movingly about how after her husband died, she cared for her mother for over 17 years and witnessed “the many inflections of debilitation.” During that period, Gallagher, who was fighting breast cancer, began to question whether she was “totally unfit to give what was needed.”

Once Gallagher had agreed to provide the foreword, the book quickly began to come together as a result of an Internet call for submissions. Essays and poems came in from all over the United States as well as India, France, Italy, and England. One writer asked if she should send poems about the hard times or the “good” times. The editor’s answer was, “We need both.” Included in the list of contributors are social workers, teachers, a neurologist, physicians, and psychiatrists; some wrote about caring for others with the disease, some had the disease themselves.

Dr Danielle Ofri, who was awarded the John P. McGovern Medal at AMWA’s 2005 annual conference, spoke of the power of poetry as an “elixir for our souls” against “darkness” [AMWA J. 2006;21(1):5]. The judges concurred in finding this volume a worthy addition to the literature of medicine.

—Dan Fernandez

Dan is past president of the Northwest Chapter. He is a freelance copyeditor in Seattle, WA.
Results of the 2010 Membership Survey

By Steve Palmer
2009-2010 Administrator of Chapters and Membership

As the leading resource for medical communicators, AMWA exists to serve four purposes: bringing medical communicators together, promoting standards of excellence in our field, improving the quality of medical communication, and providing its members with educational opportunities. With that in mind, AMWA conducted a membership survey earlier this year to find out who its members are and how well AMWA is fulfilling its mission.

The link to the 76-item survey, conducted via SurveyMonkey, was initially sent out by e-mail to all AMWA members (approximately 5,300) on May 24, 2010, and a reminder was sent on June 1. As a result, 1,483 members completed the survey, making the response rate 28%—the highest for any of the 4 member surveys AMWA has conducted in the past decade. (The others were conducted in 2003, 2005, and 2008.) Microsoft Excel was used to generate descriptive statistics from the survey data.

Who We Are

AMWA’s members are an extremely diverse group, covering all aspects of medical communication. The association is pleased that its member numbers grew significantly since the 2008 survey, to an all-time high of 5,652.

The median age of survey respondents was 47 years (interquartile range [IQR], 39-56 years). However, the median number of years in which respondents had worked in medical communication was only 8 (IQR, 3-15 years). This discrepancy between age and number of years in the field is probably related to the fact that many respondents had been in other careers before becoming medical communicators, as evidenced by the percentage of respondents (40%) who chose “Changed careers” to answer the question, “How did you become involved in the medical communication field?” The most common previous professions were scientist (29%), health care professional (13%), student (13%), and writer/editor (12%).

A new question asked respondents where they live—country, state or province, and postal code. The results showed that 28% percent of respondents reside in just 3 US states: California, Pennsylvania, and New Jersey. Also, 38 respondents (2.6%) reported living outside of the US or Canada; the most common country of residence was Japan (11 respondents).

Regarding respondents’ educational background, the majority stated that they currently hold an advanced degree: 30% had an MA or MS degree, 27% had a PhD, and 9% had other doctoral level degrees (eg, MD, PharmD). By far, the most common area of formal education was biology/chemistry (32%), followed by English (13%).

With regard to employment, more than one third of respondents reported being self-employed or freelance (Figure 1). The most common type of employer was pharmaceutical and medical device companies (19%); universities and medical schools ran a distant second (9%). Four percent of respondents reported being unemployed; this percentage exceeded those recorded in 2008 (2%) and 2005 (1%).

Figure 1. The largest employers of AMWA members are the members themselves, followed by pharmaceutical/biotech companies and universities or medical schools.

AMWA’s Services

As AMWA continues to grow, the association is dedicated to providing members with more services and benefits, and several survey questions were designed to evaluate members’ satisfaction with AMWA and its products and services. According to the survey, the median length of AMWA membership is 5 years (IQR, 2-10 years), and most respondents reported a high level of satisfaction with their AMWA membership (Figure 2). The distribution of responses was somewhat more even than in previous years; for example, respondents selected both “Extremely satisfied” and “Somewhat satisfied” more often than they did in 2008, whereas they selected “Very satisfied” less often.
Regarding AMWA's publications (Table 1), most respondents reported being very satisfied or somewhat satisfied with the AMWA Journal and the monthly AMWA Update. Approximately half (51%) of respondents said that they read the journal selectively; the sections that respondents reported reading most often were Professional Development (62%), Freelance Forum (51%), Practical Matters (43%), and the Science Series (43%). Also, 80% of respondents were aware that the AMWA Journal is available in an immediately accessible (and environmentally friendly) PDF-only format.

The majority of respondents reported either having no opinion about or being unfamiliar with both AMWA's self-study modules and its Essays for Biomedical Communicators. However, those who had purchased any of the 4 existing self-study modules (Basic Grammar and Usage, Punctuation for Clarity and Style, Sentence Structure and Patterns, and Statistics for Medical Writers) tended to rate them favorably; 64-75% were very satisfied, 19-28% were somewhat satisfied, and only 6-10% were not satisfied. Basic Grammar and Usage drew the most "Very satisfied" ratings and the fewest "Not satisfied" ratings.

Other education-related questions addressed AMWA's new certificate programs. Many respondents reported being very or somewhat satisfied with the Essential Skills program and the 4 new specialty programs (Business, Composition and Publication, Concepts in Science and Medicine, and Regulatory and Research). However—perhaps because of the newness of these programs—a substantial proportion of respondents (48% for Essential Skills, 61% for the specialty programs) reported being unfamiliar with them or having no opinion about them.

Several questions were asked about AMWA's annual conferences. The association's premier event is still one of the most affordable conferences in the industry. More than half of the respondents reported being very or somewhat satisfied (33% and 22%, respectively) with the annual conference, but 40% were unfamiliar with the conference or had no opinion about it. This latter finding may be due, in part, to the number of respondents who had never attended an annual conference (29% of respondents [431/1,483] skipped a question that asked about previous conference attendance). Expense appears to be a substantial factor in the nonattendance of many members. To the question, "If you have not attended an annual conference, what were your primary reasons?" the most commonly chosen answer was "A combination of cost factors." Additionally, 61% of respondents reported that when or if they attended an annual conference, their employer would not cover any of their expenses. Likewise, to an analogous question about reasons why respondents had attended at least 1 annual conference, "Company paid for it" was the second most popular answer after "Professional development."

**AMWA Members Are on the Internet**

Members tended to rate AMWA's online offerings as being particularly important among AMWA's services, especially the AMWA Web site, Jobs Online, and the Freelance Directory. Also, most respondents were familiar with these resources and with AMWA's listserves. More than half of respondents reported using Jobs Online at least a few times a year, and 9% reported using it daily or weekly.

![Figure 2](https://via.placeholder.com/150)

**Figure 2.** Respondents' overall satisfaction with their AMWA membership in 2005, 2008, and 2010. (Different response categories were used in 2003, so these data were not included.)

| Table 1. Satisfaction With AMWA Publications* |

<table>
<thead>
<tr>
<th></th>
<th>Number of Responses</th>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not at All Satisfied</th>
<th>Not Familiar</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMWA Journal</td>
<td>1,388</td>
<td>37</td>
<td>44</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>AMWA Update</td>
<td>1,390</td>
<td>26</td>
<td>49</td>
<td>4</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Self-study modules</td>
<td>1,384</td>
<td>19</td>
<td>15</td>
<td>5</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Essays for Biomedical Communicators</td>
<td>1,368</td>
<td>10</td>
<td>17</td>
<td>5</td>
<td>37</td>
<td>31</td>
</tr>
</tbody>
</table>

*Percentages for all categories are based on the total number of responses for that category.
As for the Freelance Directory, 25% of respondents reported that the fact that members can search the directory for no additional charge was an important factor in their decision to join AMWA or to maintain their membership. However, only 35% of respondents who were freelances reported having a listing in the Freelance Directory. The most commonly reported reason for not having a listing was “Do not need to advertise; I have enough work” (41%); the second most common reason was “Too expensive” (29%).

AMWA has now expanded its online presence to LinkedIn, Facebook, and Twitter to encourage member social networking. The survey results indicated that these social media sites are used by many AMWA members, but the survey did not include questions related specifically to AMWA's presence on these sites.

**AMWA Chapters**

Respondents were divided about chapter activities (Table 2). Although more than half of respondents rated both chapter conferences and chapter meetings as being very or somewhat important, satisfaction with these events was lower—barely half of respondents reported being very satisfied or somewhat satisfied with chapter conferences, and only a minority were very satisfied or somewhat satisfied with chapter meetings. Mainly, this was because a large number of respondents had no opinion of or were unfamiliar with these chapter events. Nonetheless, in response to the question “What chapter functions are useful to you?” many respondents’ selections included “Educational conferences and workshops” (55%) and “Professional contacts” (50%).

To the question, “How often do you attend chapter meetings?” relatively few members answered “Always” (3%), “3 or more times a year” (9%), or even “Twice a year” (11%), whereas 37% of respondents said they never attended chapter meetings. Geography appeared to be critical to respondents’ participation in chapter meetings; 51% of respondents stated that location was an important factor in their decision whether to attend a chapter meeting.

**AMWA Code of Ethics**

Three new survey questions referred to AMWA’s Code of Ethics. Eighty-four percent of respondents indicated that they were familiar with the Code of Ethics. Additionally, 95% said that they generally follow the principles of the code, and 46% said that they have advocated the code or one of its principles.

There was also a survey item that listed 8 different issues of potential concern to medical communicators. When asked to rank these issues in terms of how concerned the respondent was about them, respondents most often chose “Ethics in medical communication” as the issue about which they were most concerned.

**Plans for the Future**

Several items in the survey referred to AMWA’s planned and possible future endeavors. One such question asked respondents which AMWA workshops they would most like to see published in self-study form (in addition to the 4 currently available self-study modules and the two that will be released in the near future—*Elements of Medical Terminology*, to be released this fall, and *Essential Ethics for Medical Communicators*, which will be released in 2011). The most popular choices were *Tables and Graphs* (22 respondents), *Essentials of Copyediting* (16 respondents), and *Statistics for Medical Writers and Editors* (15 respondents). Also, many respondents asked for a self-study module pertaining to a general area of interest rather than a specific workshop; the most popular of these was regulatory writing (44 respondents).

A few new items surveyed respondents about the possibility of AMWA developing a professional certification that one would have to pass a competency examination to obtain (similar to the Editor in the Life Sciences certification offered by the Board of Editors in the Life Sciences [BELS]). Sixty-six percent of respondents agreed that it would be desirable to have such a certification in the medical communication profession, and 54% said that they would pursue such a certification if it were available.

### Table 2. Importance of and Satisfaction With Chapter Conferences and Meetings*

<table>
<thead>
<tr>
<th></th>
<th>Number of Responses</th>
<th>Very</th>
<th>Somewhat</th>
<th>Not at All</th>
<th>Not Familiar</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter conferences (important)</td>
<td>1,371</td>
<td>37</td>
<td>28</td>
<td>5</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Chapter conferences (satisfied)</td>
<td>1,366</td>
<td>22</td>
<td>28</td>
<td>7</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Chapter meetings (important)</td>
<td>1,373</td>
<td>29</td>
<td>32</td>
<td>6</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Chapter meetings (satisfied)</td>
<td>1,365</td>
<td>17</td>
<td>29</td>
<td>9</td>
<td>21</td>
<td>24</td>
</tr>
</tbody>
</table>

*Percentages for all categories are based on the total number of responses for that category.
**How's Business?**

A few questions asked respondents about how well they expected to do in their business in the coming year. Generally, respondents were optimistic, being more likely to expect an increase in income than a decrease (Figure 3A). Likewise, respondents who described themselves as hiring managers were more likely to expect their staff levels to increase than to decrease (Figure 3B), and freelances tended to expect their businesses to do better this year, rather than worse (Figure 3C).

Like its predecessors, the 2010 Membership Survey revealed a great deal about who AMWA's members are, how well they are making use of AMWA's services, and what AMWA can do to serve its members better in the future. AMWA continues to survey its membership every few years to obtain valuable information that allows the association to continually improve and grow to meet the needs of the profession.

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**Figure 3.** Responses to questions about business prospects in the coming year. These were (A) “How do you see your work-related income in medical writing for this year compared with last year?” (B) “If you are a hiring manager, how will your business staffing levels be this year compared with last year’s levels?” and (C) for freelances, “How do you anticipate your business faring this year as compared with last year?”
Meet Your 2010-2011 AMWA Executive Committee (EC)

The 2010-2011 AMWA Executive Committee (from top): Karen Klein, Jennifer Grodberg, Steve Palmer, Sharon Nancekivell, Doug Haneline, Tami Ball (front), Christine Wogan (back), Tom Gegeny, Judi Pepin (front), Faith Reidenbach, Melanie Fridl Ross, Donna Miceli, Barbara Snyder, and Donna Munari (AMWA Executive Director).

Melanie Fridl Ross, MSJ, ELS, President
A member since 1996, Melanie has served AMWA in many capacities on the national and chapter levels. She has been a member of the EC since 2003, serving 2 terms as the Publications Administrator, as the 2006 Annual Conference Administrator, and 2 terms as the Chapters and Membership Administrator. She was also a member of the Science Curriculum Task Force, of the Task Force on Partnering with Academic Institutions, and of the Constitution & Bylaws Committee, and is a past chair of AMWA's Nominating Committee, of the History Task Force and of the Chapter Newsletter Award Committee. She has been a breakfast roundtable leader at each annual conference since 2004, was the open session coordinator in 2003, and has been an open session speaker and a workshop leader. She was president of the Florida Chapter from 2002-2003. She earned Board of Editors in the Life Sciences (BELS) certification in 2000.

Melanie is Director of News and Communications at the University of Florida (UF) Health Science Center in Gainesville, FL. She also produces the award-winning radio program “Health in a Heartbeat,” which airs on public radio affiliates in 18 states and in Washington, DC, and she is on the adjunct faculty at UF’s College of Journalism and Communications, where she teaches news reporting. For a number of years, she held a dual appointment in UF’s Division of Cardiovascular Medicine as an author’s editor. She holds a master’s degree in journalism with concentrations in newspaper administration and legal reporting from Northwestern University and was a Washington correspondent, covering health for Northwestern’s Medill News Service. She is a former reporter for The Tampa Tribune.

Tom Gegeny, MS, ELS, Immediate Past President
A medical writer and editor for more than 12 years, Tom Gegeny works as an account team lead and senior medical writer with Envision Scientific Solutions, Inc, part of the UBC-Envision Group. Tom’s past employment has included nonprofit and information services work, including his roles as Executive Director and Senior Editor at The Center for AIDS Information and Advocacy in Houston and as Publications Specialist with the Houston Academy of Medicine–Texas Medical Center Library. Tom has led more than 100 workshops and lectures overall, and this year marks his eleventh year of service as an AMWA workshop leader. Tom has been a leader and past president of AMWA’s Southwest Chapter, has been involved in numerous committees and task forces in AMWA, and looks forward to continued contributions to the profession through this organization. Tom relocated from Texas in 2006 and currently lives in southwestern Connecticut. He finds he misses his previous home, Houston, every year at this time—mainly because of an allergy he has developed. . .to winter weather. . . .

Barbara Snyder, MA, President-Elect
Barbara has a BA in British Literature, an MA in American Literature, and 30 years of experience as a medical writer for the pharmaceutical industry. She is currently the Director of Medical Writing at Warner Chilcott (US), LLC. She has previously served on AMWA's Executive Committee (EC) as Administrator of the Annual Conference, Publications, Development, and Education. She has been a member of the Budget & Finance Committee (5 years), Education Committee (2 years), Constitution & Bylaws Committee (2 years), Science Curriculum Task Force (2 years), Workshop Leader Benefit Task Force (2 years), Nominating Committee, Elections Task Force, and Swanberg Award Committee; Chair of Eric Martin Publications Award Committee; and President of the Ohio Valley Chapter. The 2 achievements she is particularly proud of both involve AMWA: She received the President’s Award for outstanding service to AMWA in 2003 and was made a fellow of the organization in 2006.
The fact that her job requires her to spend a week each month in New Jersey also means she has access to New York City, so she has met several actors from Broadway (Angela Lansbury and Vanessa Redgrave being her favorites so far). By the way, she is also proud of the 21-inch bass she caught this summer.

Judi Pepin, PhD, Treasurer
Judi is looking forward to a fourth term as AMWA Treasurer. She had previously been a member of the Budget & Finance Committee for 3 years and Treasurer of the Ohio Valley Chapter for 7 years. She also served as Administrator of Development in 2006-2007. Judi is a senior writer in the Department of Scientific Writing and Editing at The Procter & Gamble Company, with 20 years of experience in regulatory, manuscript, and scientific report writing. She earned a bachelor’s degree in biochemistry from Smith College and a master’s degree and a PhD degree in pharmacology and toxicology from the University of Connecticut, after which she completed a postdoctoral fellowship in Vascular Cell Biology and Atherosclerosis at the Cleveland Clinic. In her free time, she gardens and quilts and has recently found her calling doing pet therapy with her pug Bella.

Doug Haneline, PhD, Secretary
A teacher of literature and writing for over 30 years, Doug has been at Ferris State University in Michigan since 1984. He teaches research writing, advanced composition, medical writing, science fiction, American and British Literature courses, and Introductory Latin. Doug is a doctoral graduate of Ohio State University, with prior degrees from Middlebury College and the University of Delaware. He served on the Michigan Humanities Council, the state affiliate of the National Endowment for the Humanities, and he is an AQIP and PEAQ Peer Reviewer for the Higher Learning Commission. In AMWA, Doug has served as Michigan Chapter President and at the national level as Book Awards Chair, the Administrator of Awards, the Administrator of Education, Annual Conference Coordinator, and as the chair or a member of numerous AMWA task forces and committees. He is also a workshop leader. He has 2 adult daughters of whom he is very proud. His daughter Beth, a university computer technician, can explain the problems with his computer in language even he can understand.

Steve Palmer, PhD, ELS, Annual Conference Administrator (2011 conference)
Steve earned a PhD in social and health psychology at SUNY Stony Brook in 1999 and then moved to Texas to conduct pain research as a postdoctoral fellow at The University of Texas MD Anderson Cancer Center in Houston. While there, Steve heard about medical writing from a friend of a friend, and he joined AMWA to learn more about it. Soon thereafter, Steve began a new job as a medical writer at the Texas Heart Institute, and at about the same time, he became the Southwest Chapter’s delegate to the national Board of Directors. He later served as the chapter’s program chair, president, and coordinator of the chapter’s biannual conference. On the national level, Steve has served as Administrator of Chapters and Membership, has been a member of various AMWA committees, and was Poster Session Coordinator for the 2008 Annual Conference. In his spare time, Steve enjoys working toward the various goals that he set for himself this year: In August, he single-handedly cooked a 10-course dinner for a group of friends, and in October, he participated in a 5k run for the first time in over a decade. He hopes to finish a screenplay and invent a crème-brûlée cookie recipe before the year is out.

Jennifer Grodberg, PhD, RAC (US), Annual Conference Workshops Coordinator
Jenny has nearly 17 years’ experience in the pharmaceutical industry and currently serves as Director of Regulatory Affairs at Trius Therapeutics, a small company developing antibacterial drugs for the treatment of infections caused by drug-resistant bacteria. Prior to entering the world of regulatory affairs and medical writing, she spent more than 10 years in discovery research. Jenny joined AMWA while still at the bench and has been an AMWA member for 14 years. Her thought to learn and build upfront what’s needed downstream happily constructed the foundation for the career path she walks today. Jenny co-leads the IND application workshop, has organized several open sessions covering various pharmaceutical and regulatory topics, and currently serves as President elect of the Pacific Southwest Chapter. She’s currently making her way through her “before I turn 50” bucket list (not to be confused with the “before I kick the bucket” bucket list). Although behind timeline with trying the number of new recipes she’s targeted, she has more than checked off the “listen to 10 audiobooks” goal and just completed her “visit [to] Southeastern Utah-Monument Valley.”

Christine F. Wogan, MS, ELS, Awards Administrator
Christine was introduced to AMWA’s Southwest Chapter in 1989, when she was working at NASA’s Johnson Space Center in Houston. Chris joined AMWA in November of that year and attended her first national meeting in Toronto in 1991, where she was also among the first group to become BELS certified. Chris earned her AMWA core certificate in November 1994 and her advanced certificate in October 1998. Her positions with the Southwest Chapter have included Director-at-Large, Treasurer (an 8-year stint), and President. Chris began her editing career learning how to write NIH research grants, and publish the resulting findings, with a professor at MIT. After establishing a part-time freelance business editing grant proposals in the Boston area, she moved to Houston with her husband John Evanoff (whom she met when he hired her to
write one of those proposals), and she began editing full-time at Johnson Space Center in 1989. She subsequently joined the Department of Scientific Publications at The University of Texas MD Anderson Cancer Center and is now the Publications Program Manager of the Division of Radiation Oncology at MD Anderson, when she’s not busy trying to keep the neighborhood ducks out of her swimming pool.

**Tami Ball, Chapters and Membership Administrator**
Tami Ball should be quite comfortable in her EC position; within her first year of joining AMWA 6 years ago, she led a revamp of the dormant Michigan Chapter and later served a 2-year term as its president. At the national level, she has served AMWA as Administrator of Awards, Chapter Delegate to the Board of Directors, Roundtable Coordinator, a contributor to the Science Fundamentals program, and chair of the Alternative Learning Technologies Task Force and has developed and led coffee klatches, roundtables, panel discussions, and workshops. Tami fell into medical writing after 13 years as an emergency medicine physician, but she has always been a writer at heart, having completed her first major document—a 26-page written and illustrated treatise on space aliens—at the tender age of 9. If you want to get on her good side, ask to see pictures of her border collie, Luca.

**Sharon Nancekivell, BEd, MA, Education Administrator**
Sharon has more than 30 years of experience designing and teaching courses in professional writing skills. In addition to teaching undergraduate and graduate courses in literature, scientific and medical writing, and public speaking at the University of Guelph or the University of Toronto, she has taught more than 100 workshops and seminars in medical writing, patient education, and plain language to health care professionals, researchers, and professional medical editors and writers throughout Canada and the United States. A member of AMWA since 1989, Sharon is a Golden Apple Award–winning workshop leader. In her spare time, she volunteers at her local literacy center, where she is helping her learner write her memoirs.

**Donna Miceli, Publications Administrator**
Donna, a native of Western New York State, earned a BS in journalism and speech from Syracuse University. She has been a freelance medical writer for more than 20 years. Her prior work experience includes writing a weekly newspaper column, doing freelance copywriting for small advertising agencies, and serving as Assistant Director of Public Relations for a large hospital in Buffalo, NY. An active member of AMWA since 1989, when she joined the Delaware Valley Chapter, Donna has led roundtable discussions, served on a variety of committees at the national level, moderated or chaired annual conference sessions, and coordinated and chaired the Creative Readings for several years. Donna, who was elected an AMWA Fellow in 2007, has been a member of the EC since 2008, serving 2 terms as Administrator of Web & Internet Technology (WITT). Currently a member of the Florida Chapter, Donna lives in Ft. Myers and considers herself “semi-retired.”

**Karen Potvin Klein, MA, ELS, Special Projects and Communications Administrator**
Karen has been on the EC previously as the Administrator for Public Relations, Publications, Annual Conference Workshops, and Awards, so she knows the drill. Karen has been an AMWA member since 1988 and created and leads our 2 grant editing workshops. She has received both the BELS and the Certified Grant Professional credentials. She is an Associate Director in the Office of Research at Wake Forest University Health Sciences in Winston-Salem, NC, where she is the institution’s grants and manuscript editor. Nationally, she is one of 30 grant reviewers for the Avon Foundation for Women and one of 24 lay advocate reviewers for Susan G. Komen for the Cure Foundation grants. When not sweating it out over grant deadlines, you can find Karen sweating it out in Bikram Yoga class, where the studio is a toasty 105 degrees and where, one day, she will find her true balance in the balancing poses.

**Faith Reidenbach, Web & Internet Technology (WITT) Administrator**
Faith will be responsible for AMWA’s Web site, listserves, and social media, as well as exploring ways to develop multimedia and online educational offerings. Faith previously served 4 terms on the WITT committee, including 2 years as chair of the Freelance Directory Subcommittee, which recommended changes to the directory’s searchability and client access. Among her other service at the national level, she is a member of the Certification Task Force, is a regular contributor to the AMWA journal, and has been Administrator of Publications and Administrator of Awards. Faith feels well-prepared to direct a big department because she was formerly executive editor of Reuters medical news; she is now co-principal of an independent medical writing and consulting business in Corvallis, OR. Her hobbies are hiking, running an online book group, fundraising for her favorite social justice group, birding by ear, and (human) choral music.