
Preventing Medical Errors: Communicating a Role for Medicare Beneficiaries

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This study used a focus group methodology to examine how Medicare beneficiaries reacted to messages on specific kinds of preventive action, including those adopted by public and private section health organizations. Beneficiaries were asked to rank the messages on their own, and then to discuss their rankings in focus groups. The best-received messages advocated a collaborative patient-provider relationship. They also specified which actions to take, and how to implement them. The authors conclude that public health campaigns to reduce errors need not undermine trust in providers.

INTRODUCTION

In November 1999, the Institute of Medicine released a report by Kohn, Corrigan, and Donaldson (1999) in which they stated that medical errors in hospitals account for as many as 98,000 deaths each year. Few studies have attracted as much public attention. According to one survey, 51 percent of Americans “closely followed” news of the report (Kaiser Family Foundation/Harvard School of Public Health, 1999). The reaction is not surprising: Many Americans believe that errors have affected them or a friend or relative (National Patient Safety Foundation, 1997). Still another survey found 61 percent “very concerned” about receiving the wrong medicine, and 56 percent “very con-

cerned” about complications from a medical procedure (American Society of Health System Pharmacists, 1999).

The Federal Government has begun a campaign to educate the public about medical errors by disseminating messages on actions that consumers can take to prevent errors. Using 20 error-reducing activities that the Agency for Healthcare Research and Quality (AHRQ) identified as feasible for consumers to undertake, several Federal agencies concerned with quality in health care met with private organizations to cull a common set of messages to disseminate to consumers (Agency for Healthcare Research and Quality, 2000a). This list, *Five Steps to Safer Health Care*, has been endorsed by the Quality Interagency Coordination Task Force (2000) and is already in use by the Office of Personnel Management, the Joint Commission to Accredit Healthcare Organizations, and by TRICARE, the military health care system. Both the Five Steps and AHRQ’s 20 actions suggest that patients take a pro-active role in their health care by maintaining and providing their health histories, by studying treatment options, and by asking physicians and other providers questions concerning their health care.

Here, we explore how receptive Medicare beneficiaries may be to messages on how to reduce medical errors. Using a focus group methodology, we examined beneficiaries’ reactions to messages on error prevention from AHRQ and other sources. We present our findings on which messages beneficia-

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ries ranked high or low, and why. We also discuss the implications for a public health campaign on medical errors.

SOCIAL MARKETING AND THE MEDICARE AUDIENCE

A social marketing approach to public health communication utilizes a customer-centered perspective. Applied to the Medicare program, it calls for viewing beneficiaries as customers with particular needs and beliefs. By better understanding these needs and beliefs, public health campaigns such as the one to reduce medical errors can create strategies and messages to which customers will be more likely to be receptive and responsive (Andreasen, 1995; U.S. Department of Health and Human Services, 2000; Weinreich, 1999).

Social marketers utilize formative and pretest research to understand the customer's perceptions (Andreasen, 1995). Like many social marketing studies, this one consisted of both formative and pretest research. As formative research, it sought to assess the views that Medicare beneficiaries had on medical error prevention. As pretest research, it sought to develop message strategies for reducing these errors.

Medicare customers are particularly important for a campaign aimed at preventing medical errors because they are leading health care consumers. Medicare beneficiaries spend an average of \$7,087 per year for health services, compared with \$1,814 for the population as a whole (Agency for Healthcare Research and Quality, 2000b). If a campaign succeeded in persuading this population to act to prevent errors, it could positively influence the health system as a whole.

However, this population presents major challenges to a public campaign. Thirty-four million of Medicare's 39 million beneficiaries are age 65 or over, a segment that often

rejects the kinds of pro-active health behaviors that a campaign might promote to reduce errors. The elderly, particularly lower-educated males, are more likely to be passive (Benbassat, Pilpel, and Tidhar, 1998; Ley, 1988). They ask too few questions and leave medical problem solving—and even decisionmaking—to doctors (Gill, 1998; Ong et al., 1995). In addition, the elderly are more likely to find it difficult to understand or act on messages about errors. Compared with younger patients, a higher proportion of the elderly suffer from cognitive deficits, chronic conditions, and functional impairment, among other problems (Light, 1996; Meyer, Marsiske, and Willis, 1993; Park, Morrell, and Shifren, 1999; Salthouse, 1991; Zacks and Hasher, 1997). Furthermore, research also indicates that patients of all ages, including the elderly, do not receive the information they feel they need to be active and informed participants about their health care (Braddock et al., 1999; Braddock et al., 1997; Guttman, 1993; Rost, Carter, and Inui, 1989; Roter and Hall, 1992).

Nonetheless, studies have documented the ability of Medicare beneficiaries to respond to interventions to increase their use of preventive health practices. For example, they have responded to various interventions designed to increase influenza and pneumococcal immunization rates, mammography rates, cervical smear cytology rates, and colon cancer screening rates (Southern California Evidence-Based Practice Center, 1998).

STUDY GOALS AND METHODS

This research addresses the following major objectives:

- Identify the individual messages on error prevention which participants thought they were most likely to act on, to help public and private sector agencies' promotional activities.

- Identify the kinds of patient-provider relationships that beneficiaries have or would like to have. To attract consumers, message content must be consistent with their perceptions and values (Kotler and Roberto, 1989; Weinreich, 1999), and reflect patient-provider relationships that consumers find realistic, effective, or desirable.

Findings were based on results from eight 2-hour focus groups with Medicare beneficiaries. Each focus group contained nine participants, ranging in age from 65 to 80. They were evenly divided by sex; 38 percent were black while 62 percent were white. The groups were held in two regions: four in Baltimore, Maryland and four in Richmond, Virginia. In each city, there were two groups of participants with lower education (high school diploma or less) and two groups with higher education (college courses or more).

In all eight focus groups, moderators probed what the term “medical errors” meant to participants: how receptive they were to pro-active interactions with providers and the kinds of relationships they valued with providers. This preliminary discussion may have influenced subsequent tasks participants were asked to complete. However, an introductory sequence that clarifies the issues at hand and allows participants to share their views is an integral aspect of focus group discussion (Krueger, 1998).

During this discussion, participants demonstrated a strong familiarity with the topic. Many offered dramatic examples from media accounts, such as amputations of the wrong limb. Some said they had experienced errors firsthand, as was the case with one person who claimed to have received the wrong pills from a pharmacy. Participants also indicated that they welcomed pro-active interactions with providers. Many strongly supported the need to take

actions such as checking prescriptions, insisting on effective treatment, and soliciting second opinions. Participants also discussed the kinds of relationships with providers that they preferred. Among the qualities they valued was being listened to and respected.

Following this discussion, participants in 6 of the groups were asked to rank 28 messages about what patients can do to reduce medical errors (Table 1). Messages 1-20 were drawn from *Twenty Tips to Help Prevent Medical Errors* (Agency for Healthcare Research and Quality, 2000a). Study authors formulated additional messages to examine other promising aspects of medical error prevention. Each message was placed into subject categories based on those developed by AHRQ: 5 addressed hospital/surgery issues; 9 dealt with prescriptions; and 14 concerned a range of other issues (Table 1).

To make the ranking process easier, we asked participants to use a seven-point common scale containing limited values. Each participant was asked to rank messages based on how likely he or she was actually to perform an action. Participants performed this exercise separately for messages in each of the three categories. Because the medicines and general categories contained more messages than ranking values in the scale, each participant was told to assign no more than two messages within each category to a ranking (e.g., he or she could rank two messages highly likely to perform). For hospital and surgery issues, each participant was asked to assign no more than one message to a ranking.

The rankings allowed the moderator to identify a few consistently higher ranked messages and a few consistently lower ranked messages. Discussion then focused on the aspects of these messages that made participants more or less likely to perform that “tip.” Moderators also

Table 1
Consumer Messages on Medical Errors, by Category

Message Number	Category	Message
1	General	Be an active member of your health team.
2	Medicines	Keep a record of the medicines you take and be sure to tell your doctor about them and any allergies you might have.
3	Hospital/Surgery	Choose a hospital that has a lot of experience in treating your condition.
4	Medicines	Make sure all of your doctors know about everything you are taking. This includes prescription and over-the-counter medicines, and dietary supplements such as vitamins and herbs.
5	Medicines	Make sure your doctor knows about any allergies and adverse reactions you have to medicines.
6	Medicines	When your doctor writes you a prescription, make sure you can read it.
7	Medicines	Ask for information about your medicines in terms you can understand—both when your medicines are prescribed and when you receive them.
8	Medicines	When you pick up your medicine from the pharmacy, ask: Is this the medicine that my doctor prescribed?
9	Medicines	If you have any questions about the directions on your medicine labels, ask.
10	Medicines	Ask your pharmacist for the best device to measure your liquid medicine. Also, ask questions if you're not sure how to use it.
11	Medicines	Ask for written information about the side effects your medicine could cause.
12	Hospital/Surgery	If you have a choice, choose a hospital at which many patients have the procedure or surgery you need.
13	Hospital/Surgery	If you are in a hospital, consider asking all health care workers who have direct contact with you whether they have washed their hands.
14	Hospital/Surgery	When you are being discharged from the hospital, ask your doctor to explain the treatment plan you will use at home.
15	Hospital/Surgery	If you are having surgery, make sure that you, your doctor, and your surgeon all agree and are clear on exactly what will be done.
16	General	Speak up if you have questions or concerns.
17	General	Make sure that someone, such as your personal doctor, is in charge of your care.
18	General	Make sure that all health professionals involved in your care have important health information about you.
19	General	Ask a family member or friend to be there with you and to be your advocate.
20	General	Know that more is not always better.
21	General	If you have a test, don't assume that no news is good news.
22	General	Learn about your condition and treatments by asking your doctor and nurse and by using other reliable sources.
23	General	Write your questions before you see the doctor; check for answers before you leave.
24	General	Ask your specialist to talk or write to your personal doctor.
25	General	Take a written list of your symptoms to your doctor's appointment.
26	General	Before you say "yes," ask if you have treatment options.
27	General	If you don't like the treatment, ask for the alternatives.
28	General	What you don't know about your health care can kill you.

NOTE: Messages 1-20 are based on error reducing activities that consumers can undertake and general messages 21-28 were formulated from the study authors.

SOURCES: (Agency for Healthcare Research and Quality, 2000a) and the Center for Beneficiary Services, Centers for Medicare & Medicaid Services, 2000.

probed whether participants understood the messages, and how to implement them. Where different messages had similar contents, moderators probed why participants chose one over the other(s).

Table 1 reports normalized rankings to adjust for the possible effects of the differences between the number of messages and the seven-point scale, and to allow comparisons across categories. Individual scores were standardized by subtracting the mean

score for all respondents on all questions in the category and dividing the result by the standard deviation across all respondents and all questions in the category.

FINDINGS

Participants in each group were highly aware of medical errors, and receptive to playing a personal part in prevention. Table 2 presents the messages that were

Table 2

Focus Group Survey Results of Consumer Messages on Medical Errors, by Rank and Mean

Standardized Rank	Message Number	Category	Mean Standardized Score
1	4	Medicines	0.95
2	15	Hospital/Surgery	0.81
3	5	Medicines	0.81
4	22	General	0.64
5	16	General	0.54
6	2	Medicines	0.51
7	18	General	0.48
8	3	Hospital/Surgery	0.33
9	23	General	0.32
10	9	Medicines	0.28
11	7	Medicines	0.27
12	17	General	0.19
13	14	Hospital/Surgery	0.14
14	25	General	0.11
15	26	General	-0.06
16	12	Hospital/Surgery	-0.08
17	24	General	-0.09
18	27	General	-0.11
19	1	General	-0.13
20	11	Medicines	-0.21
21	21	General	-0.27
22	28	General	-0.30
23	19	General	-0.50
24	8	Medicines	-0.77
25	20	General	-0.91
26	10	Medicines	-0.92
27	6	Medicines	-1.00
28	13	Hospital/Surgery	-1.22

NOTE: Messages listed from highest to lowest rank.

SOURCES: Author's calculations based on focus group participants responses to messages (Agency for Healthcare Research and Quality, 2000a) and the Center for Beneficiary Services, Centers for Medicare & Medicaid Services, 2000.

well received by the participants and the scores for each. Although correlations should be reserved for random samples, the high correlation of 0.88 between the scores given by high and low education groups suggests strong agreement on which messages participants thought themselves most and least likely to do. The combination of rankings across sets assumes rankings for each set of messages are distributed similarly across the three categories. The following analysis collapses results from the two education groups.

Highest Ranked Messages

As Table 2 shows, messages that received the highest rankings tended to suggest specific ways for patients to inform their providers and to inform themselves about what providers were doing. Subjects

preferred directive messages that told them what information to supply to doctors and what kinds of medical attention to monitor.

“Keeping your doctor informed” (messages 4 and 5) was a well-received theme. There was also a sense that participants could accomplish these actions, though many did not seem to be carrying them out. Some thought that their doctors would ask about drugs and over-the-counter substances they were taking, making it unnecessary for them to raise the subject. Participants also looked to pharmacists to flag drug interactions.

Messages 16 and 22 have a related theme of informing yourself. Participants across educational levels said they want to know what is wrong and how to get better. However, some in both high and low education groups felt unqualified to recognize reliable information. Moreover, some in both groups thought information “makes you worry.”

According to participants, message 15 is “vital” to minimizing mistakes during surgery. Some confusion existed over how to make sure doctors agreed. While many said they would “talk with” their physicians, others trusted doctors to communicate with one another. Although some did not feel qualified to intervene in disagreements, this feeling was not universal. As one participant explained, “If they don’t agree, let’s find out why.”

Lowest Ranked Messages

Four of the five messages that received the lowest ratings called on patients to directly challenge providers. Participants thought that these messages recommended actions they found unnecessary or troubling or both. Messages 8, 10, 6, and 13 were generally regarded as unnecessary because participants believed health care professionals had already acted to ensure that problems in these areas were highly unlikely to arise. For example, many said pharmacists verified prescription information with doctors’ offices. Participants also registered strong discomfort at the thought of openly challenging health professionals. For example, one participant said he would not ask health care workers to wash their hands because he “would be afraid” of recriminations.

Message 20 was poorly received because it was too general. They wondered, “More of what? Treatment? Information? Medicine?” Participants preferred greater specificity.

Consumer Messages and Patient-Doctor Relationships

Message rankings suggest support for more collaboration between patients and providers. Many participants talked about the importance of providing and soliciting

information. Some talked about the importance of second opinions. Others spoke of efforts to research their medical conditions. But there were limits. For example, many questioned their ability to evaluate medical information. While some spoke of receiving useful information from the Internet and library sources, others were uncertain that they could do the same. As one person asked, “If you go to a medical book, how are you going to understand [the information]?”

DISCUSSION

These focus group findings appear to contradict research that suggests the elderly prefer more paternalistic patient-provider relations (Beisecker and Beisecker, 1990; Benbassat, Pilpel, and Tidhar, 1998; Ley, 1988; Ong et al., 1995; Greene et al., 1994; Callahan et al., 2000; Corley and Jacobs, 2000). To some extent, these findings could be the result of self selection: more pro-active people may be more likely to participate in focus groups. These findings may also result from group interactive effects in which participants provide views that appear to be more popular, such as support for collaborative patient-doctor relations (Stewart and Shamdasani, 1990).

However, the discrepancy between focus group findings and other research on patient-doctor relations may not be as contradictory as it first may seem. While the issue requires further investigation, it appears that participants recognized that patient passivity is common and that they sympathized with that behavior. However, it is not admired and only after considerable prodding would any participants admit to having been passive themselves. Insofar as consumer messages on medical errors aim to communicate important and desirable

actions that may not always be practiced, these findings suggest that public health campaigns on medical errors should promote the importance of pro-active behavior.

Support for a paradigm of patient-doctor collaboration appeared to form a strong perception that influenced how participants interpreted messages on errors. Highly ranked messages are consistent with this perception. None call for patients to challenge doctors. Rather, they recommend that patients know about their conditions, tell doctors about relevant information, and understand information that doctors provide them.

This pattern of reaction suggests that message development in the future should consider the model of patient-provider relations that people prefer. Most of the messages tested are grounded in evidence showing that the actions advocated would effectively reduce errors. However, it is also important to promote messages with actions that people are likely to take.

CONCLUSION

Whether a public health campaign on medical errors would succeed is beyond the scope of this research. However, our findings suggest that its chances of success would be greater if consumer messages had the following characteristics:

- *Advocate a collaborative doctor-patient relationship.* Participants were more receptive to messages that called for patients to work with, rather than challenge, health professionals.
- *Specify action to be taken.* Participants preferred directive messages that they readily understood, for example, message 4. They did not respond to slogans as in message 20.

- *Clearly indicate mode of implementation.* Patients need directions on how to act on a message. For example, while many like the message, “If you are having surgery, make sure that you, your doctor, and your surgeon are clear on exactly what will be done,” not everyone knew how to achieve that consensus.

Focus group findings also suggest that public health campaigns to reduce medical errors can draw attention to the issue without weakening the trust that patients have in providers. Many health care professionals fear weakened trust will result from more open discussion of errors (Kohn, Corrigan, and Donaldson, 1999; Horton, 1999; Hingorani, Wong, and Vafidis, 1999). However, participants clearly believed that their providers could be competent, and at the same time be capable of making mistakes. “They’re only people, and people make mistakes,” as one person explained. Many offered stories of how assertive at times they had to be with their providers. Yet there was strong agreement that trust between patient and provider was essential, even if the trust was not blind. As another participant observed, “Try to get a doctor whom you really trust, and you have confidence in him. And what he tells you, you can believe. But I would certainly say get a second opinion.”

Public awareness of medical errors is widespread, even before a large-scale public health campaign on the issue has gotten fully underway. Since the subject cannot be swept under the rug, disseminating effective messages to patients on error prevention may reduce their occurrence without weakening the trust between patients and providers.

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