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Using Pamphlets with Mail Surveys to Improve Response

Mailed questionnaires have been relied upon to obtain information on a variety of subjects. They represent an inexpensive and convenient method by which researchers can address issues that do not require personal interviews. This is most appropriately demonstrated in health-related questionnaires. One problem with mail questionnaires is that response rates are not very good and that this produces a nonresponse bias.1 There have been several studies to improve rates in specific subgroups.2,3 There have also been studies that have offered creative incentives for improving response rates.4,5

Our study focused on an elderly population of patients who had been diagnosed with a transient ischemic attack (TIA) at Yale-New Haven Hospital between January 1985 and January 1989. The final study group consisted of 284 patients, and the medium by which response rates were expected to improve was through a pamphlet enclosure.

Each five-page questionnaire was coded with a number. Enclosed with the questionnaire was a hand-signed cover letter by the Director of the Yale Stroke Program explaining the significance of the study and of returning the questionnaire. For patients with even code numbers, there was an extra enclosure of an American Heart Association pamphlet on stroke called "Break the Link," which described risk factors for stroke. The cover letter for these patients contained an additional paragraph describing the pamphlet and the importance of reading it. Of the total 248 originally mailed, 82 were mailed to patients who were deceased; 17 patients were unable to answer the questionnaire because of a disability; 6 were lost; and 26 refused to respond. The response rate prior to the phone call was 42 (48.8%) for patients with even code numbers and 44 (51.2%) for patients with odd code numbers. The overall response rate after one phone call was 117/166 (70.5%)—60/117 (51.3%) for patients with even numbers and 57/117 (48.7%) for patients with odd numbers.

In following up on the secondary questions of improving immediate knowledge levels, there was again little difference. For the question regarding patients’ awareness of risk factors for both TIA and stroke before their TIA, there were 84 respondents—42 (50%) with even numbers vs 42 (50%) with odd numbers. Awareness of two risk factors or more was considered good to excellent knowledge; awareness of one or no risk factors was considered fair to poor knowledge. In the category of good to excellent knowledge, there were 11 (26.2%) with even numbers vs 7 (16.7%) with odd numbers; and in the category of fair to poor, 31 (74.85%) with even numbers vs 35 (83.3%) with odd numbers (P = .425). For the question on patients’ awareness of risk factors after their TIA, there were 78 respondents—37 (47.4%) with even numbers vs 41 (52.6%) with odd numbers. In the category of good to excellent knowledge, there were 21 (56.8%) with even numbers vs 16 (41.6%) with odd numbers; and in the category of fair to poor knowledge, 16 (43.2%) with even numbers vs 25 (61.0%) with odd numbers (P = .181). Controlling for age and educational level did not change these results to any significant extent.

Thus, this study demonstrates that more creative approaches than a pamphlet enclosure are needed to improve response rates. Patients were not motivated perhaps because pamphlets are not a regular source of information for this predominantly elderly population. Most patients received their information from health care professionals.

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References

2. Maheux B, Legault C, Lambert J. Increasing response rates in physician's mail sur-
Habits and Attitudes of Public Health Students

Medical students are under constant scrutiny. Index Medicus lists more than a hundred articles per year concerning their knowledge, beliefs, and conduct. By contrast, public health students have remained relatively free from inquiry. We discovered fewer than a dozen studies in the past 2 decades focusing on public health students. We decided to investigate the habits and attitudes of students at the Harvard School of Public Health (HSPH).

In May of 1990 an anonymous two-page questionnaire was sent to all students at HSPH. Questions, taken verbatim from various national polls were asked concerning (1) individual health-related behavior and (2) views on public health issues. Students also rated the quality of their educational experience and indicated whether, if they had it to do over, they would again seek public health training.

The response rate was 64%. Reflecting school enrollment, 27% of the respondents were physicians, and about 33% were foreign nationals.

It might be argued that, because of their interest and training, the conduct of public health students represents an upper limit to what might be expected from health education interventions. Fortunately, these students seem to have incorporated much public health wisdom into their life-styles. Of US students, 89% claimed to wear their seatbelt all the time and 97% said they did not smoke. This level of cigarette consumption is below the very low rates found among US medical students. On the other hand, US public health students tended to drink more often than the average citizen although less often than medical students.

US public health students at Harvard are politically "liberal" regarding public health issues. They overwhelmingly supported legal abortions (96%), seatbelt laws (87%), national health insurance (76%), and handgun bans (75%); they opposed the death penalty.

Compared with the US students, those from abroad were more likely to smoke and less likely to wear a seatbelt. They were more likely to favor national health insurance and handgun restrictions. Overall, however, US and foreign HSPH students were found to be more similar to each other than to the general or college-educated US population.

In terms of their health attitudes and behavior, there was little to distinguish physician from nonphysician HSPH students except that physician students were (a) somewhat more likely to oppose national health insurance and (b) somewhat less likely to believe that abortion should be legal under all circumstances.

If they had it to do over, 92% of the students would again seek public health training.

The findings indicate that public health students have clear common interests although are a disparate group. Widespread agreement exists among them on many health-related policy issues, and compared even with American medical students, their personal behavior seems very healthy. Few appear to regret their decision to seek a public health education.

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Readability of Health Warnings on Alcohol and Tobacco Products

The United States government requires specific health warnings on alcohol and tobacco products, some of which include complex sentences and unusual terms like "carbon monoxide." Because adolescents and other individuals with limited reading skills often have problems with alcohol and tobacco, the readability of the warnings may be crucial to their effectiveness in preventing these problems. Although the federal government started requiring some warnings more than 20 years ago, it appears that no one has ever determined the reading ability needed to understand them. Hence, we decided to evaluate the readability of government-required warnings on alcohol, cigarette, and smokeless tobacco containers.

We assessed the readability of the warnings with three standard tests called the Flesch,1 Gunning's Fog,2 and Dale/Chall3 methods. These methods focus on length of sentences, average number of syllables per word, and the unfamiliarity of the words. Higher scores on the Flesch indicate that material is easier to read; lower scores on the Gunning and Dale/Chall indicate that material is easier to read.

All three methods produced similar results, indicating that the single alcohol warning and each of the four cigarette warnings require a reading level typical of college students or college graduates. Flesch formula scores ranged from 8.4 to 47.6; Gunning formula scores from 13.9 to 31.6; and Dale/Chall formula scores from 10.0 to 12.2. These findings are unfortunate for the many Americans with lower reading ability.

The three smokeless tobacco warnings require more appropriate reading levels typical of middle school or high school students. For them Flesch scores ranged from 52.9 to 86.7; Gunning scores from 2.8 to 12.0; and Dale/Chall scores from 7.3 to 8.5.

The results persuade us that the federal government should consider (a) modifying existing alcohol and cigarette warnings to make them more readable and (b) using readability analyses in developing new warnings.

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References

Lead Exposure in Sandblasting

With respect to the discussion of exposure to lead in sandblasting and the possibility that this exposure may have