

“Show Me the Money:” Medical Directors’ Responses to a Mail Survey

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Mail surveys are one of the most widely used procedures for obtaining information from physicians. Such surveys can be an effective and relatively inexpensive method of data collection. However, physicians, more so than most groups, have among the lowest survey response rates even when follow-up reminders are used.¹ In a previous review of published surveys of physicians, the mean response rate was 54%. Almost 45 years ago, an article described physicians’ reactions to a mailed questionnaire as a study in “resistentialism.”² The author described some of the key reasons for refusal to complete the questionnaire based on comments he received on returned questionnaires. The reasons given by physicians were: an unwillingness to be part of stereotyping and generalizing; resistance to restrictions imposed by closed-format questions (eg, multiple-choice formats); and hesitancy to respond to questions that “don’t make sense.” Sudman identified at least 4 factors beyond the questionnaire format.³ First, physicians are very busy, and they would prefer to use their limited time on more important (or lucrative) professional activities. Second, the value of the survey is not clear to the physician or it may be clear but is perceived to be of low value (a cost-benefit is mentally calculated on the value of questionnaire completion versus the time it will take). The third reason for not responding may be concern about the confidentiality of the results. This worry may include ego security, that is, concern that responses which may make the physician appear uninformed might be shared with others. The final reason may include the perception of

bias in the questionnaire, possibly by not allowing a full range of answers or not wording the questions in a perceived unbiased manner.

It is characteristic for journal editors, manuscript reviewers, and journal readers to focus, in part, on the response rate of a mail survey. The assumption is that the higher the return rate, the less the chance is for nonresponse bias.^{4,5} Generally this is true. However, as long as a researcher has a significant number of survey responses to have sufficient statistical power, low response rates are not automatically a problem. If researchers can show that their respondents are representative of the population, and the return rate has sufficient statistical power, then there should be no problem with a lower response rate. Of course, a high response rate also typically lowers the cost per response.

Enhancing Physician Response Rates to Mail Surveys

In an attempt to reduce nonresponder bias from surveys to physician populations, researchers have used a variety of methods to enhance responses to mailed surveys. Two techniques that have consistently been shown to improve response rates are incentives and multiple follow-up contacts. Numerous studies of physicians have found that use of monetary incentives increases response rates. Gunn and Rhodes paid incentives of \$0, \$25, and \$50 to groups of general and family practitioners, internists, industrial physicians, and pediatricians to participate in a 15- to 30-minute telephone interview, with response rates of 58%, 69%, and 77%, respectively.⁶ Response rates were found to vary considerably across specialties. Mizes, Fleece, and Roos compared the effectiveness of smaller incentives, \$0, \$1, and \$5.⁷ Using a 5-item postcard questionnaire, they obtained response rates of 53%, 74%, and 74%, respectively. Using a questionnaire printed on the back of a check for either \$1 or \$5, they obtained response rates of 53% and 72%, respective-

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ly. Donaldson et al conducted a similar study of 400 physicians in which either no incentive or a \$5 check was enclosed with the initial survey; the response rates were 41% and 58%, respectively.⁸ Everett et al surveyed members of the American Academy of Family Physicians with either no incentive or \$1 and obtained response rates of 45% and 63%, respectively.⁹ Asch and colleagues, who used either a \$2 bill or a \$5 bill as incentive⁵ to primary care physicians for responding to a questionnaire, found that the \$5 bill resulted in a significantly higher return rate than the \$2 bill (61% and 46%, respectively).¹⁰ In contrast, James and Bolstein studied increasing amounts of incentives (eg, \$1, \$5, \$20, and \$40) and found that all monetary conditions increased response rates over no incentives.¹¹ Interestingly, the \$20 check had a response rate of 79%, whereas the \$40 check had a lower response rate of 69%. This seems to support Dillman's contention that as the amount of the incentive approaches the actual value of the service, response rates are likely to diminish because the incentive is no longer seen as a "token of appreciation" but rather as a payment for services rendered.¹² Others would suggest that the size of the incentive payment may be one of the cues to potential respondents that the research project is important and therefore worthy of their time in completing the questionnaires.

We are not sure exactly how financial incentives work. Usually smaller incentives are described in cover letters of surveys as tokens of appreciation for a professional courtesy and not as a payment. Subjects may feel guilty taking the small financial incentive and not completing the survey. Maybe large incentives induce more guilt up to a point of diminishing returns, although some nonresponders will overcome their "guilt" or feeling of "coercion" about completing the survey by returning the financial incentive in the envelope provided for returning the survey.

A second issue with financial incentives is their timing. Berry and Kanouse paid physicians \$20 as an incentive with half of the subjects receiving payment with the initial mailing and the other half receiving a promise to be paid after they returned the survey.¹³ Response rate for those paid in advance was 78% and 66% for those promised future payment.

These results are supported by other studies with physicians which found that incentives are not as effective when used in follow-up mailings.¹⁴ Payment in advance may be a signal to potential respondents that their participation in the study is very impor-

tant. It also is likely to communicate trust while simultaneously creating an obligation to either respond or return the incentive, or possibly be perceived as a petty thief.

Sometimes incentives are offered only after a potential respondent has initially not responded to a survey, and an incentive is used in an attempt to convert the refusal. When the initial survey responders are not offered an incentive but the nonresponders are rewarded for responding on follow-up contact, will the uncompensated respondents who learn of the differential payment of incentive feel that they have been treated inequitably? Will this result in them being unwilling to respond to future surveys? Singer et al have attempted to answer these questions.¹⁵ Using an area probability sample of households in the Detroit area, they found that 72% of respondents who were initially paid \$5 for survey participation and informed that initial nonresponders were paid an additional \$25 to respond (a total of \$30), perceived the practice to be unfair. Surprisingly, the participants who knew of the differential payment and those who did not know did not differ in their perceived willingness to participate in future survey studies. The 2 groups were followed up a year later and asked to participate in another survey. It was found that 52% of those who knew of the differential incentive payment participated as did 55% of those who did not know, a non-significant difference.

A second method widely used to enhance response rates to mailed surveys is to make multiple follow-up contacts. After initial mailing of a survey, follow-ups typically consist of a second mailing of the questionnaire with a follow-up postcard, or one or more telephone contacts, or some combination of written and telephone contacts. Numerous studies of mail surveys with multiple contacts to physicians have shown significant improvements in response rates,^{14,16} averaging almost 14% in improved response rate.¹

Cash Incentive and Follow-Ups for Medical Directors in Managed Care

In this issue of the journal, Malin and colleagues have published the response rate from a mail survey to medical directors in managed care.¹⁷ If for no other reason, this survey of such a unique physician population warrants attention. The authors appear to have initially conducted a mail survey in which they ignored much of the basic literature on improving survey response rates. They did not use an incentive in the initial mailing and used a 10-page

questionnaire (118 items). Both of these attributes fly in the face of research on response rates.

We do not know whether the survey was on colored paper or whether the postage on the return envelopes was supplied as first-class stamps (compared to metered), both of which can affect return rates.^{18,19} However, we do know that the authors used 4 follow-up contacts (in the following order): telephone call, second mailing, second telephone call, and a third mailing. Such intensive and expensive contacts should have significantly increased the return rate. Furthermore, the third mailing used US Postal Service priority mail. DeValle and colleagues have found that when a third mailing of a questionnaire consisted of certified mailing versus first-class mail, the certified mailing resulted in a 66% higher return rate.²⁰ We do not know whether physicians would perceive priority mail and certified mail in the same light. Yet, it seems logical that priority mail would have had some impact on improving the response rate.

Finally, the third mailing (priority mail) included a \$50 bill. Research has already shown improved response rates from using incentives, and the larger the incentive, the greater the response rate. However, the research also shows that for incentives to be most effective, they should be used with the initial mailing, not with follow-up mailings.¹⁴

The authors attempt to justify a variety of concerns with their study. First, responders to the first- and second-wave mailings ("altruistic responders") were not remunerated, but the nonresponders who received the \$50 for the third request to participate were rewarded for their efforts. One can only assume from similar research that those physicians who might find out about not being paid an incentive will feel that the process was unfair.¹⁵ We do not know whether this is likely to cause these unpaid responders to hesitate to respond to future surveys.

It would have been more equitable if the authors had sent \$35 checks to the 46 "altruistic responders" from the first and second wave and to the 123 third mailing sample. In addition, because the potential respondents would have been receiving a check, it is less likely that someone would have intercepted and cashed the incentive.

The other significant aspect of this study was the fact that the authors obtained an extremely low response rate on the first 2 waves of the survey but were able to significantly improve the response rate in the end. Such a final response rate (76%) would likely be acceptable for publication in a medical journal.¹ However, while improving the final

response rate, the authors probably created one of the least cost-effective surveys to have been published on survey response techniques.

Also, we do not know the long-term impact of providing large incentives to induce potential nonresponders to respond. Will large incentives become the expected norm for completing a survey? If so, will financial incentives then dictate which surveys receive adequate response rates? Will important surveys with limited budgets not get published for lack of adequate response rate?

Finally, as a side note, readers of the article probably will notice that 9 of 10 medical directors who did not respond to the survey kept the \$50 bill. The ethical posture of these clinicians seems to fit the public stereotype of administrators of managed care organizations as financially self-serving. Perhaps such administrators need to be more sensitive to their actions (or inactions) if they prefer to be seen in a more positive light.

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