Impact of a postcard versus a questionnaire as a first reminder in a postal lifestyle survey.

Heather Roberts, James C G Pearson, Regina Dengler

Abstract
Study Objective—The study aimed to consider the impact of two different types of reminder on response rates and costs in a postal survey.
Design—The study was a cross sectional survey. A self-completion lifestyle questionnaire was used. Those who did not respond after the initial mailing were randomly allocated to receive either a postcard or questionnaire as a first reminder. All outstanding non-responders received a questionnaire as a second reminder.
Subjects—A representative sample of 698 adults aged 16–70 was used, drawn from a family health services authority register.
Main results—Postcard reminders were as effective as questionnaire reminders in increasing response whether one or two reminders are sent. The costs per response were calculated. Two questionnaires as reminders were found to be 1.7 times more expensive than a postcard plus questionnaire. Including the initial mailing, the cost per response using all questionnaires was 1.3 times the cost when a postcard was used for the first reminder.
Conclusions—To increase the response to a postal survey effectively and economically, two reminders should be sent—first a postcard and then a questionnaire.

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Throughout the 1980s and into the 1990s increasing emphasis in health promotion has been placed on the need for information by which to inform policy and monitor the impact of activity on populations. Routine information about health related behaviour, knowledge, beliefs, and attitudes is unavailable from existing sources. An increasingly popular method of collecting population lifestyle data in Great Britain is a postal survey using a self-completion questionnaire. Responses to postal surveys are likely to be lower, however, than those to interview based studies. In postal lifestyle surveys response rate has been highest at 80% in Oxfordshire but has been most frequently between 50–60%. Grinnell states that for postal surveys a response of 50% is adequate, 60% is good, and 70% or more is very good. Various methods have been shown to increase response, with reminders consistently shown to have one of the greatest influences. Different types of reminders have been used. For example, in a Welsh survey telephone reminders and postcards were used. In South Birmingham a questionnaire and letter were sent. In most studies the only or final reminder is a further copy of the questionnaire. The cost of the various types of reminder do not seem to have been reported in detail.

We report findings from a pilot survey carried out in the autumn of 1991 as part of the Trent Health Lifestyle Survey, and address the practical issue of what type of reminders should be sent in a postal survey.

Method
The sample for the pilot study was drawn from the family health services authority patient register of a district with a population of 205,000. The register was stratified by gender and age. From each stratum a systematic sample was drawn, with random start and fixed sampling fraction, designed to provide a total sample of 700.

The study was carried out using a self-completed questionnaire, delivered by post and returned by freepost. After three weeks, first reminders were sent out. The non-respondents were randomly assigned to be sent only a simple postcard reminder or a follow up letter together with another copy of the questionnaire and a freepost envelope. After a further three weeks, all remaining non-respondents were sent a follow up letter plus a copy of the questionnaire and a freepost envelope. The initial mailing was on 1 November, a first reminder was sent of 21 November, and a second reminder on 2 December 1991.

Results
IMPACT OF REMINDERS
The study sample consisted of 698 individuals. Altogether 29.7% (208 of 698) responded to the first mailing and 0.8% (six of 698) questionnaires were returned as undeliverable. In a completely random allocation of the 484 non-respondents, 233 were allocated to letter, questionnaire, and envelope reminder and 251 to a postcard reminder. After a first reminder, response to the questionnaire was 25.8% and to the postcard 23.1%. After the second reminder, 15.6% in the questionnaire group and 27.5% in the postcard group responded. Overall response was 58.2% (406 of 698) of the original sample. Allowing for total non-delivery of 12% (84), the final response was 66.1% (406 of 614). For the first reminder, the study showed little evidence that questionnaires produced a better response, the 95% confidence interval for the difference in response was -0.2 to 10.3. After two reminders, the overall response were similar with 37.3% after
two questionnaires and 42-2% after a postcard and a questionnaire. The 95% confidence interval for the difference in response was -15.6% to 1.9%.

COSTS
The postcard reminder cost 23p per item (3p for printing the card and label, 18p postage, and 2p preparation for posting). The questionnaire reminder cost 63p (20p for printing questionnaire and label, 10p for envelopes, 2sp for postage and 5p preparation for posting). Each response cost 28.5p for the freepost charge.

In the questionnaire group, a questionnaire as first and second reminder was sent to 233 and 173 subjects respectively. These yielded a response of 87 at a total cost of £280.58 (£3.23 per response). In the postcard group, a postcard as first reminder was sent to 251 subjects with questionnaires as 193 second reminders. These reminders yielded a total of 111 responses at a total cost of £210.96 (£1.90 per response). Thus, for the reminders the cost per response was 1.7 times greater for the questionnaire. Taking into account the initial mailing, reminder, and response costs, the overall cost per response for the questionnaire as a first reminder (£2.77) was 1.3 times the cost for postcard as a first reminder (£2.13).

Discussion
The findings show that in postal lifestyle surveys the difference between a postcard and a questionnaire as a first reminder is negligible in terms of response, whether or not a second reminder is sent. When a questionnaire is sent as a second reminder, the evidence suggests that there may be a slight advantage in using a postcard as the first reminder.

In this study, as is usual, final response was calculated allowing for non-delivery of questionnaires. On this basis the first response was 34% (208 of 614). The use of reminders increased the response to 53% and then 66%. It therefore seems reasonable to argue that a second reminder should usually be issued in postal studies in order to increase the response to an acceptable level. A third reminder may be considered, although the time and cost implications per response are considerable. Holt has also argued that too many reminders may alienate respondents and endanger the quality of the data.

Postcard reminders have the advantage of being quicker and cheaper to administer than questionnaires. In large surveys, such as the Trent Health Lifestyle Survey with an initial sample of 21 600, the use of a postcard as a first reminder could give considerable savings without lowering the response rate. Based on the figures from the pilot survey, the expected response would be approximately 12 000 (56.4% of the initial sample). The total cost would therefore be £26 640 if the postcard were used as a first reminder compared with £34 440 if a questionnaire were used, representing a saving of £7 800 (23%).

As a method of collecting lifestyle data, postal surveys are readily repeatable and inexpensive. The results of this study have indicated that in a postal survey with two reminders, a practical and economic strategy by which to increase response is a postcard as a first reminder.

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Table. Response to different types of first reminder in a postal survey: another copy of the questionnaire or a simple postcard. All second reminders were questionnaires.

<table>
<thead>
<tr>
<th>First reminder method</th>
<th>Postcard</th>
<th>Difference in response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sent</td>
<td>Responded (%)</td>
<td>(%)</td>
</tr>
<tr>
<td>First reminder</td>
<td>233</td>
<td>60 (25 8)</td>
</tr>
<tr>
<td>Second reminder</td>
<td>173</td>
<td>27 (15.6)</td>
</tr>
<tr>
<td>Both reminders</td>
<td>233</td>
<td>87 (37.3)</td>
</tr>
</tbody>
</table>

 Nay. All questionnaires.
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