Short report: Encouraging GPs to complete postal questionnaires—one big prize or many small prizes? A randomized controlled trial

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**Background.** Low response rates to surveys are a problem in general practice. There is evidence that offering GPs incentives improves response rates to postal questionnaires. However, there is less evidence about the most effective form of incentive.

**Objective.** Our trial aimed to maximize response to a postal questionnaire and to test the most effective form of incentive.

**Methods.** The study involved a randomized controlled trial of a postal survey

**Results.** The incentive of a lottery for six bottles of champagne generated a response rate of 79%. Furthermore, one chance of six bottles generated 9% more responses than six chances of one bottle.

**Conclusions.** This study has established that, among incentives for postal questionnaires, one big prize improves the yield more than many small prizes despite the lower odds of winning. It has also confirmed that offering a modest incentive to GPs generates good response rates for postal questionnaires.

**Keywords.** General practice, incentives, postal surveys, response rates.

Introduction

Low response rates to questionnaire surveys increase the risk of bias, as respondents typically differ from non-respondents.\textsuperscript{1,2} This is a particular problem in surveys of GPs where response rates are falling, compromising the validity of postal surveys.\textsuperscript{3} Cited reasons include lack of information and feedback on research, the increasing frequency of questionnaire surveys and the pressures of everyday practice.\textsuperscript{4} A recent systematic review\textsuperscript{1} on increasing response rates to postal questionnaires has highlighted a number of positive influences, including the use of monetary incentives, which doubles the odds of response. There is evidence that a monetary incentive improves response rates to postal questionnaires specifically for GPs.\textsuperscript{5} However, there is less evidence about the most effective form of incentive.

While conducting a postal survey of GPs’ attitudes to the management of ingrowing toenails, we offered an incentive of a lottery for six bottles of champagne with the aim of improving the response. However, we were uncertain which incentive would yield the greater response—low odds of one prize of six bottles of champagne or higher odds of six prizes of one bottle. To address this question, we conducted a randomized controlled trial within the survey.

Methods

**Sampling procedures**

The study population was all 568 practising GPs in Lothian. Lothian Primary Care NHS Trust provided the database of GPs’ names and addresses. We randomly allocated practices between two groups after stratifying them by area (Edinburgh and East, West and Mid Lothian) and size of practice. We randomized practices rather than GPs to reduce contamination and confusion.
between individual GPs. Lothian Region Ethics Committee granted ethical approval.

The postal questionnaire
We developed a four-page postal questionnaire, to assess GPs' opinions on toenail surgery services offered by podiatrists and surgeons. We sent these to all 568 named GPs together with a covering letter and pre-paid return envelope. As an incentive to complete and return the questionnaire, we offered 50% of practices an incentive of a lottery for a single prize of six bottles of champagne (group A) and 50% a lottery for six prizes of one bottle of champagne (group B). We later sent all non-respondents a second wave of questionnaires, covering letter and return envelope.

Statistical procedures
We used a chi-squared test of significance from SPSS version 11.0 to analyse the difference in response rates between the two groups. To allow for clustering within practices, we also used multi-level modelling, with practice as a random factor.

Results
The initial response rates were 68% in group A and 59% in group B (Table 1). The difference of 9% (95% confidence interval 1–18%) in favour of the single prize of six bottles was statistically significant at the 5% level, whether analysed by chi-squared test or by multi-level modelling. We then sent all GPs who had not responded to the initial questionnaire a second questionnaire, all with the offer of one prize draw for six bottles. We received a further 90 questionnaires, improving the overall response rate to 79% (450 out of 568).

Discussion
This study has established that, among incentives for postal questionnaires, one big prize improves the yield more than many small prizes despite the lower odds of winning. Offering a modest incentive to GPs generated a response rate of nearly 80% to postal questionnaires in this study. While we would have liked to compare this rate with that from a group receiving no incentive at all, this could have compromised our primary objective. Incentives are likely to become more popular in the future, especially in surveys of GPs. We recommend careful consideration of the form of incentive appropriate to the target population.

Declaration
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Ethical approval: Granted by LREC (Lothian).
Conflicts of interest: None.

References