A monetary incentive increases postal survey response rates for pharmacists
Christine L Paul, Raoul A Walsh, Flora Tzelepis


Background: Achieving acceptable response rates from health care providers via postal questionnaires is an ongoing challenge. The use of monetary incentives is one of the most effective strategies for increasing response rates. However, the effect and cost of such an incentive on retail pharmacists’ response rates has not been well studied.

Methods: A sample of 700 pharmacies was selected at random from the electronic Yellow Pages for NSW, Australia. Pharmacies were eligible to participate if they had sold any nicotine replacement therapy (NRT) or bupropion in the previous month. Eligibility was self-assessed by the pharmacist completing a screening item on the front of the survey. The accuracy of recall was expected to decrease over time, therefore a period of one month was selected as the maximum time since contact with a customer that would provide acceptable recall. The pharmacist in charge in each selected pharmacy was mailed a primer postcard followed by the questionnaire within the following two weeks. Non-responders received one print reminder four weeks after receipt of the questionnaire. Telephone reminders were provided a further two to six weeks later.

RESULTS
Of the 700 pharmacies selected in the sample, 35 were found to be ineligible (returned survey showed no NRT or Zyban sold in past month, pharmacy closed, wrong address, duplicate, or no pharmacist at the pharmacy). Of the remaining 665 pharmacies, 397 returned a completed questionnaire (response rate = 59.7%). For the voucher group, 220 of the 334 eligible pharmacists returned a completed questionnaire, giving a response rate of 65.9%. For the no-voucher group, 177 of the 331 eligible pharmacists returned a questionnaire, giving a response rate of 53.5%. The difference between these two proportions was significant ($\chi^2 = 10.6, df = 1, p<0.005$ OR = 1.68,

Conclusions: A moderately sized monetary incentive is able to achieve a significant increase in response rates for retail pharmacists, thereby reducing potential bias in the sample.
DISCUSSION AND CONCLUSION
The use of a moderate monetary incentive produced a significant increase in the number of pharmacists who completed a health related questionnaire. An increase in response rates from 54% to 66% is both statistically significant and probably reduces the potential for bias in the sample. The increased odds of a response, at 1.68 is significant and probably reduces the potential for bias in response rates from 54% to 66% is both statistically

The increased odds of a response, at 1.68 is significant and probably reduces the potential for bias in response rates from 54% to 66% is both statistically significant and probably reduces the potential for bias in the sample. The increased odds of a response, at 1.68 is slightly lower than the 2.02 found by Edwards’ et al systematic review. Given that previous research has found higher response rates are likely to be achieved by a non-conditional incentive, rather than the conditional incentive used in this study, double the odds of a response as found by Edwards et al may be achievable with this population. When considered in terms of the cost of US$67.95 per additional respondent, smaller incentives are worth exploring with this population. The generalisability of the finding outside the Australian context must be considered. However, given that the finding is not dissimilar to other studies of incentives the result may be generalisable.

Policy implications
The use of incentives to increase response rates imposes an additional cost on research funds, yet seems to significantly increase response rates, even for health care providers in a highly commercialised environment. Therefore, researchers even on limited funds need to consider the potential benefits of incentives as a matter of course.

It should be noted that the study included the use of a primer postcard and reminders, each of which has a significant effect on response rates. A factorial design that would have isolated the effect of the incentive, was not possible in this trial given the level of funding available. However, figure 1 shows that the impact of the incentive was to increase the response to the initial mail out. The two reminders seemed to have a similar impact on both study groups, independent from the effect of the voucher.

Clearly, a useful increase in the response rates of retail pharmacists is achievable with a moderately sized monetary incentive, although the incremental cost may be considered high.

ACKNOWLEDGEMENTS
The work of Richard Turner and Deanna Wolfgang on this project is acknowledged.

Authors’ affiliations
C L Paul, R A Walsh, F Tzelepis, Centre for Health Research and Psycho-oncology (CHeRP), Wallsend, NSW Australia

Funding: this paper was prepared by the Centre for Health Research and Psycho-oncology (CHeRP). The project was funded by the University of Newcastle Research Grants Committee, the Cancer Council NSW, and the Hunter Medical Research Institute. The views expressed are not necessarily those of the Cancer Council NSW.

Competing interests: none declared.

Correspondence to: Dr C Paul, Centre for Health Research and Psycho-oncology (CHeRP), Locked Bag No 10, Wallsend 2287, NSW, Australia; Chris.Paul@newcastle.edu.au

Accepted for publication 20 July 2005
REFERENCES

THE JECH GALLERY
Visual impairment and new technologies

The term “visual impairment” encompasses a variety of conditions. A range of equipment is available to enable people with sight loss to participate in various activities. Some of these have been around for a long time: the first book in braille was published in 1827; guide dogs for the blind were first formally trained a century later. New technologies—such as computer software—are constantly being developed and what is now available means that there is no reason why a blind person cannot be employed in a job that is primarily computer based.

These pictures show Mark Kirkham, who is totally blind, working for the South West Public Health Observatory on a project analysing data on road traffic collisions. Jaws screenreader software has been installed on Mark’s PC, allowing him to use many other applications including Microsoft Access and Excel. Jaws software, manufactured by Freedom Scientific, reads aloud all the text information that would normally appear on the screen of a sighted person. Jaws may be configured in a variety of ways so that different types of information are spoken appropriately. For example, it will read at different speeds and can be set to read either all changing information on the screen or only what is currently highlighted. Where a sighted person would often use a mouse, Jaws makes use of keyboard shortcut commands to perform functions such as navigating through dialogue boxes and activating buttons.

The image at the top shows Mark reading braille, the bottom right image shows him wearing headphones enabling him to listen to Jaws without disturbing colleagues in a busy office. The third image (bottom left) illustrates Mark using a “Braille ‘n Speak”, a stand alone note taking device. It uses a braille keyboard and, like Jaws, has a voice output. It is portable, which means it is suitable for Mark to quietly take notes in meetings. The machine also has a serial port, allowing it to communicate with mainstream devices such as printers and PCs. The equipment needed by any person with a visual impairment will reflect their personal needs, circumstances, and preferences. It has the potential to bring about inclusion in terms of both social and employment opportunities.

Mary E Shaw
South West Public Health Observatory, Bristol, UK and Department of Social Medicine, University of Bristol, Bristol, UK
Correspondence to: Dr M E Shaw, Department of Social Medicine, University of Bristol, Canynge Hall, Whiteladies Road, Bristol BS8 2PR, UK; Mary.shaw@bristol.ac.uk
Funding: Mary Shaw is funded by the South West Public Health Observatory.

Mark Kirkham
South West Public Health Observatory, Bristol, UK

www.jech.com