



Evidence Summary

Free Access Does Not Necessarily Encourage Practitioners to Use Online Evidence Based Information Tools

A Review of:

Buchan, H., Lourey, E., D'Este, C., & Sanson-Fisher, R. (2009). Effectiveness of strategies to encourage general practitioners to accept an offer of free access to online evidence-based information: A randomised controlled trial. *Implementation Science*, 4, article 68.

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Abstract

Objectives – To determine which strategies were most effective for encouraging general practitioners (GPs) to sign up for free access to an online evidence based information resource; and to determine whether those who accepted the offer differed in their sociodemographic characteristics from those who did not.

Design – Descriptive marketing research study.

Setting – Australia's public healthcare system.

Subjects – 14,000 general practitioners (GPs) from all regions of Australia.

Methods – Subjects were randomly selected by Medicare Australia from its list of GPs that bill it for services. Medicare Australia had 18,262 doctors it deemed eligible; 14,000 of these were selected for a stratified random sample. Subjects were randomized to one of 7 groups of 2,000 each. Each group received a different letter offering two years of free access to BMJ Clinical Evidence, an evidence based online information tool. Randomization was done electronically, and the seven groups were stratified by age group, gender, and location. The interventions given to each group differed as follows:

- Group 1: Received a letter offering 2 years of free access, with no further demands on the recipient.

- Group 2: Received a letter offering 2 years of free access, but on the condition that they complete an initial questionnaire and another one at 12 months, as well as allowing the publisher to provide de-personalized usage data to the researchers.
- Group 3: Same as Group 2, but with the additional offer of an online tutorial to assist them with using the resource.
- Group 4: Same as Group 2, but with an additional pamphlet with positive testimonials about the resource from Australian medical opinion leaders.
- Group 5: Same as Group 2, but with an additional offer of professional development credits towards their required annual totals.
- Group 6: Same as Group 2, but with an additional offer to be entered to win a prize of \$500 towards registration at a conference of the winner's choice.
- Group 7: A combination of the above interventions. The group received the opinion leaders' pamphlet, the online tutorial, and eligibility for professional development points.

The online survey and usage data from Groups 2 through 7 was to be analyzed as part of a companion study, and is not reported in this article.

To protect the privacy of individual subjects, Medicare Australia mailed out the offers and provided the authors with anonymized data, in table format, on response status by intervention group and by the following sociodemographic variables: age, gender, geographic remoteness as determined by the Accessibility/Remoteness Index of Australia (ARIA), country of graduation, and years since graduation. Baseline characteristics were compared between the intervention groups, and then response rates were also compared between intervention groups and between the above-mentioned variables to see whether any of these variables affected the likelihood of practitioners being interested in an online

evidence based tool. All comparisons were done using a chi-square test.

Main Results – Overall, 2,105 subjects returned their acceptance forms, out of the total sample of 14,000 (15%). The true acceptance rate was 12.5%, however, when adjusted for the number of subjects in Groups 2 through 7 who went on to complete the online questionnaire.

There was a statistically significant difference in response rates between the seven groups, with the greatest acceptance rate (27%) coming from Group 1 (who received only the letter of offer, with no experimental demands). The other groups averaged a response rate of 10% collectively, with the lowest rates (8.0% and 8.5% respectively) from Group 5 (offer of professional development points) and Group 7 (combination of interventions).

The large sample size offered adequate power to detect differences in characteristics between responders and non-responders. The study found that responders were more likely to be younger, male, recent graduates, and practising in less remote locations. Among responders, there were no statistically significant differences in most of these characteristics among the seven groups, with the exception of time since graduation, which varied somewhat.

Conclusion –

The authors conclude that funding of access to free online resources for large groups of practitioners may not be cost-effective if calculations of cost are based on total eligible populations rather than on the number of practitioners who may be interested. They also conclude that the low response rates generated by their offer indicate a need to find ways to increase GPs' interest in using online evidence based tools and in accessing best practice evidence. Further research into how to achieve behaviour change among practitioners may be needed.

Commentary

This is a strong study that addresses the information behaviours of an important group of healthcare practitioners: GPs. While the population was Australian, it seems likely that the results could be generalized to the rest of the English-speaking world. The participation of Medicare Australia in the project ensured that the researchers were able to draw their sample from a very accurate pool of the total population of GPs in Australia. The large sample size of 14,000 meant that although there were seven intervention groups, each group contained 2,000 subjects, thus forming a large enough sample of its own to provide precise estimates. Although response rates were quite low for some of the groups, the goal was simply to discover whether subjects would accept an offer of free access to an evidence based tool, so it is probably safe to conclude that non-respondents were not interested.

The authors acknowledge some limitations to their study. There is a small possibility that since the letters of offer came from Medicare Australia, the organization responsible for GPs' reimbursement, doctors in the groups with experimental demands may have been reluctant to accept the offer because of the possibility that their individual usage data might be shared with this organization. Response rates may also have been low because of a dislike of responding to unsolicited mail. (A letter was the only form of communication by which the offer was made.) More importantly, it is very likely that there was some contamination between groups, as doctors within the same practice may have received different letters of offer.

There are a few other difficulties with this study, the most important of which is the low response rate, given that the highest response rate among groups was 27%, and the other groups were much lower. This could pose a problem for the groups that are participating in surveys or usage monitoring, in that the results would not be very representative. It is not clear whether lower response rates in groups two through seven were due to doctors' unwillingness to complete two

surveys, reluctance to have their online activity monitored, or a combination of these things, as there were no groups to which each of these conditions was given separately. Given the large difference in response rates between Group 1 (27%) and the other groups (10%), this is an important question. The authors do not indicate how they phrased their request to monitor doctors' activity, so it is difficult to determine whether the subjects could be reassured that their data would not be linked directly to them at the individual level.

It is possible that the incentives offered simply did not offset the costs in terms of physician time, learning curve, and effort. For example, \$500 to attend a conference would not come close to covering the full cost of attendance. The authors also mention that the offer of professional development points was made during a time at which most practitioners had likely accumulated most or all of the points they needed for the year, a factor which undoubtedly affected acceptance rates among subjects in the group that received this offer.

Because there was no follow-up with Group 1, it is unclear how many of the doctors in this group who responded to the free offer would actually end up using the resource. However, this could be remedied with the development of some sort of voluntary survey during the two-year free access period.

It would have been interesting to know about subjects' access to the Internet, experience using it, and access to other online databases. The authors might even have been able to gather some useful data from those who didn't accept the offer, had they supplied a postage-paid envelope and asked those who weren't interested in the offer to indicate whether this was due to lack of Internet connectivity, inexperience/discomfort using the Internet in practice, or access to other preferred resources. It is possible that some of the recipients of this offer may already have had access to Clinical Evidence (for example, through status as faculty in a medical school) or to a competitor product such as UptoDate.

Such access may have reduced the incentive to sign up for this study's offer.

The authors indicate that they used a chi-square test for comparisons, but they don't report the chi-square test results in the article. What the study clearly shows is that merely offering a resource free of charge does not guarantee that it will be adopted, and that certain time-honoured strategies for increasing uptake, such as incentives or opinion-leader endorsements, may not be very effective. Given that younger practitioners were more likely to accept the offer, one can hope that acceptance of such resources will increase in the future, but it also seems likely that supports are needed to encourage and assist older practitioners in the adoption of online evidence based tools.

A very important take-away point is the issue of cost. It may be more cost-effective for healthcare organizations to purchase individual licenses for interested practitioners than to buy a resource for the entire population, given that uptake is likely to be slow, at least initially. It is possible that the enthusiastic respondents to such an offer could form an "early adopter" group that would eventually promote the resource to their colleagues, thereby increasing uptake. That, however, is a subject for a different study.