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Recall, retention, utilisation and perceived acceptability of written health education materials: a pilot study to compare two distribution strategies

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Abstract

Objective: To investigate the impact of two distribution strategies (mailout and general practitioner(GP)) on the recall of receipt, retention, utilisation and perceived acceptability of written health education materials.

Design: Structured interviews were conducted with randomly selected individuals who had received written health education materials.

Setting: Two semi-rural communities in New South Wales, Australia.

Subjects: 512 people were randomly selected to take part in the study: 212 from general practitioners' surgeries and 300 from the electoral register. 55 (10.7%) of these were not contactable. 386 (84.5%) of those contactable consented to the survey.

Interventions: 300 people received the education materials through the mail in a personally-addressed envelope. Another 212 received the materials from their general practitioner at the end of a routine consultation.

Main Outcome Measures: Recall of receipt, retention, utilisation and perceived acceptability rates 2 weeks after distribution of the materials.

Results: 77.4% of the mailout group and 90.9% of the GP group recalled receiving the materials; 75.4% of the mailout group and 93.3% of the GP group reported keeping the booklet; 66.7% of the mailout group and 56% of the GP group reported reading the booklet. Perceived acceptability of the materials was high, with over 80% of respondents finding them very or fairly eye-catching, believable, interesting and easy to read.

Conclusion: Although general practitioner distribution led to higher rates of receipt and retention, mailout distribution, via the electoral register, led to higher utilisation rates and allowed access to a larger proportion of the population, resulting in more individuals having been exposed to the education message.

Introduction

Written health education materials are a frequently-used intervention tool in the field of health promotion and disease prevention[1-21]. Much research has been conducted to produce concrete and specific guidelines about how to design such materials in order to make them easy and interesting to read and credible to the reader[22-24]. However, the issue of the impact of the method of distribution on how well such materials are received has been less well studied, although mailout[2,3,6,9,12,14-17,20,21] and personal distribution by health care professionals[1,4,5,8,10,11,13,18,19] appear to be the most commonly-used distribution strategies.

It is possible that the method by which written health education materials are received could affect the way in which they are perceived by the recipients. This could be a consequence of the perceived credibility and appropriateness of the source distributing the materials affecting the perceived credibility of the materials. In this instance, it is possible that health care professionals would be perceived as a more appropriate source of health education materials than a mailout. However, this difference could be reduced by using a personalised mailout from a credible and well-known source. A second factor might be that the time and place in which the materials are received could affect whether they are read immediately, put aside for later consideration or discarded unread. A third factor is the extent and speed of coverage possible by each distribution strategy. The mailout method has the potential to reach a much larger proportion of the population in a much shorter time than distribution by health care professional could hope to achieve. However, if this increased coverage was at the expense of utilisation, then no beneficial gains could be expected.

A MEDLINE[25] literature search, spanning the last ten years, failed to locate any studies which had investigated the impact of distribution strategy on recipients' perceptions of the same written health education materials. Therefore, this study aimed to compare the effectiveness of two strategies for distributing written health education materials to the general population: mailout, via electoral register listings, in a personally-addressed envelope and manual distribution by general practitioners at the end of a routine consultation. The electoral register was chosen as the source of the mailout because it provided access to the majority of the Australian population: 86% of the adult Australian population were Australian citizens and, therefore, eligible for inclusion in the electoral register at the time of the 1991 Census[26]. General practitioners were chosen as the health care professionals to distribute the materials because

they represent the most visited type of health care professional: approximately 72% of Australian adults see a general practitioner at least once a year[27]. Specifically, this study aimed to assess the impact of the two distribution strategies on the recall of receipt of the materials; the retention of the materials; the utilisation of the materials; and the perceived acceptability of the materials.

Methods

Materials

All participants received exactly the same package of materials containing:

i)**an introductory letter** - which explained the need for people to adopt preventive behaviours and engage in screening behaviours that would reduce their risk of developing cancer and cardiovascular disease.

ii)**a "Better Health Booklet"** - a 16-page booklet which provided information about the prevalence of cancer and cardiovascular disease; recommendations about preventive, screening and early detection behaviours by which individuals could reduce their risk of developing cancer and cardiovascular disease; and details about where to go for further information. The readability of the booklet was assessed using a computer package entitled "Rightwriter"[28]. This programme gave a "readability index" of 7.11, meaning that an education level equivalent to Year 7 (approximately 12 years old) was required to read this booklet. More than 86% of adults resident in NSW meet this educational requirement[26].

iii)**a "Better Health Diary"** - a purse/wallet-sized diary which provided space for recording important health information (such as blood group and family history of cancer and cardiovascular disease) and for keeping a permanent record of an individual's screening history, including blood pressure and cholesterol testing, weight measurements, skin self-examination and clinical skin examination and, for women, Pap testing, breast self-examination and clinical breast examination.

The materials were distributed under the auspices of the New South Wales Cancer Council Cancer Education Research Project.

The survey

McGuire's Communication Persuasion Model was used as a framework for assessing the response to the materials[29]. This model describes a series of steps whereby individuals change their behaviour in response to an educational message. The steps involved are exposure to the message, attention to the message, interest in the message, comprehension of the message, skill acquisition, yielding to the message, retention and retrieval of the message and, finally, behaviour change. The survey employed in this study was closely based on a survey employed previously by CERP and found to be acceptable for evaluating the effectiveness of written health education materials[30]. In summary, the survey included items on the following outcomes from McGuire's model:

a)**participants' recall of receipt of the materials** - assessed by asking respondents if they remembered receiving the materials, including a detailed description if they did not immediately remember them;

b)**participants' reported retention of the booklet and diary** - assessed by asking if they still had the materials or had given or thrown them away;

c)**participants' reported utilisation of the booklet** - assessed by asking how much of the booklet they had read and which sections were found to be the most and least useful;

d)**participants' reported utilisation of the diary** - assessed by asking which sections of the diary they had completed;

e)**the perceived acceptability of the materials to participants** - assessed by asking how eye-catching, believable, interesting and easy to read participants perceived the materials to be. This section also asked recipients for suggestions of ways to improve the materials, their willingness to pay for the materials and whether they found anything annoying, frightening or confusing in the booklet and an overall rating of the booklet. These questions were drawn from those frequently used in pre-testing by the NSW Cancer Council and the Anti Cancer Council of Victoria;

f)**participants' knowledge and attitudes regarding issues in the booklet** - including participants' perceptions of the preventability of heart disease, lung cancer, skin cancer, breast cancer and cervical cancer; their perceptions of the benefits of early detection of each type of cancer; and their perceptions of their own likelihood of suffering from cancer or heart disease. These items were also considered to be potential predictors of utilisation according to the Health Belief Model of behaviour change, which stipulates that an individual's preparedness to adopt a positive health behaviour is related to the

individual's perceived severity of the related disease, their perception of personal susceptibility to the disease and the perceived trade-off of costs and benefits associated with adopting the desired behaviour[31,32].

g)participants' demographic characteristics - including age, gender, marital status, education level, country of birth, employment status, occupational status and gross household income.

Subjects

To reduce the chances of contamination between the mailout and the GP groups, two geographically-discrete, semi-rural NSW communities were selected for participation in the study, due to their proximity to the research group. These communities were similar in demographic characteristics, with approximately 50% of the population being female, 61% being aged between 18 and 64 years, 7% having been born overseas, 76% having left school by the age of 16 years, 57% of people aged 15 years or more in the labour force and 22% of the labour force employed in the manufacturing industry[26]. In one community, a convenience sample of five general practitioners were approached and all agreed to participate in the study; the second community served as the mailout group.

General Practitioner (GP) group

A total of 212 consecutive, eligible patients from three general practitioners' surgeries in one community were given an explanatory letter by the receptionist and asked for consent to be contacted by telephone by the research team to participate in a survey about general health issues. Eligible patients were those who were aged 20-60 years, spoke English, were not too ill to participate, had not already been approached on an earlier visit to the surgery and were of a gender for which the quota had not been filled. Consenting patients received a Better Health Booklet and Diary from their general practitioner at the end of their consultation.

It was important that patients did not associate the survey with receipt of the booklet and diary, to ensure that they did not feel obliged to read more of the materials than they would have done otherwise. Therefore, in order to minimise any connection between the survey and the educational materials, the survey consent form was printed on University of Newcastle letterhead and the explanatory letter accompanying the educational materials was printed on NSW Cancer Council Cancer Education Research Project letterhead. Approximately 10-14

days after receiving the materials, consenting patients were contacted by telephone, reminded about the consent form they had completed at their general practitioner's surgery and asked to participate in a ten minute telephone survey about general health issues and the materials they had received at that visit.

Mailout group

The names of 300 people (150 males and 150 females), aged 20-60 years inclusive, were randomly selected from the electoral register for the second community. The electoral register, maintained by the Australian Electoral Commission, is a database which includes the name, address, gender, date of birth and occupation of all individuals eligible to vote in Australian elections. Enrolment on the electoral register is compulsory for all Australian citizens aged 18 years or over. These people were sent a Better Health Booklet and Diary, together with an explanatory letter, in a personally-addressed envelope. Approximately 10-14 days after receiving the materials, people were contacted by telephone and asked to participate in a survey about general health issues and the materials they had received in the mail.

Ethics

This study was approved by the University of Newcastle Human Research Ethics Committee.

Statistical Analyses

Chi square analyses were conducted to assess whether any demographic differences existed between respondents in the two groups; whether any significant differences existed in the recall, retention, utilisation and perceived acceptability rates between respondents in the two groups; and whether a number of variables were associated with booklet utilisation across the two groups. Continuity-adjusted chi squares were conducted for 2 * 2 tables and standard chi squares were conducted for larger tables.

As a number of hypotheses were being tested, an adjustment of the critical p value was considered appropriate in order to minimise the likelihood of a Type I error. The usual critical p value, of 0.05, was divided by two, the number of general hypotheses. In other words, a p value of 0.025, or less, was required to indicate a significant result. The first hypothesis, that there would be no demographic differences between the two experimental groups, was excluded from these adjustments as, in this case, 0.05 represented the more conservative p value.

Where chi square analyses indicated a significant degree of association between booklet utilisation and the potential predictor variables, odds ratios were calculated to assess the magnitude of the associations.

All analyses were conducted using the SAS statistical package[33] and the Microsoft Excel spreadsheet package[34].

Results

Participation rates

In the GP group, of the 212 patients approached, 181 (85.4%) consented to being contacted to participate in the survey. Of these, 168 (92.8%) patients were contactable during the study period and 165 (98.2%) of these consented to complete the telephone survey. This represented an overall consent rate of 82.9% from the patients approached and contactable during the study period.

In the mailout group, of the 300 people sent the materials, 258 (86%) were still at the same address and contactable during the study period and 221 (85.7%) of these consented to complete the telephone survey.

The demographics of the respondents are shown in Table 1. Chi square analyses were conducted to assess whether any significant differences existed between the respondents in the two groups. The only significant difference was that the GP group contained a higher proportion of white collar workers than the mailout group (55.4% vs 35.8%: $\chi^2 = 12.927$, df = 1, $p<0.001$).

TABLE 1 HERE

Recall, retention and utilisation rates between experimental groups

Continuity-adjusted chi square analyses were conducted to assess whether any significant differences existed between the recall, retention and utilisation rates between the respondents in the two groups. As shown in Table 2, GP group respondents were more likely to recall receiving the materials and to report having kept the materials than the mailout group

respondents. There was no significant difference between the groups in relation to whether respondents reported having read the booklets or having written in the diaries.

TABLE 2 HERE

The significant differences may give the impression that distribution by general practitioner represents the most effective way of distributing written health education materials to the majority of the general population. However, based on these figures and others about the proportion of the population who attend a general practitioner in a given timeframe[27] and the proportion of the population eligible for inclusion in the electoral register[26], Figure 1 shows a prediction of the proportion of a community likely to have read the materials using the two distribution strategies, suggesting that the mailout method would actually have resulted in a larger proportion of the community having been exposed to the education message.

FIGURE 1 HERE

Economic analysis of the two distribution methods

Given the restricted budgets available for health promotion, it is not sufficient to say that the mailout method would have reached more individuals: it is also important to consider the cost effectiveness of each method. Basic cost effectiveness ratios can be calculated relatively easily. In this study, the costs of designing the materials were excluded from the cost effectiveness analyses as these are fixed costs and would not be affected by distribution method or the number of booklets produced. For the mailout group, the total cost of printing, packaging, mailout preparation and postage was AUD$588. Of the 300 booklets distributed by mailout, 114 were read, giving a cost effectiveness ratio of AUD$5.16 per booklet read. For the GP group, the total cost of printing, packaging and delivering the booklets to the GPs was AUD$228. Of the 181 booklets distributed by GPs, 84 were read, giving a cost effectiveness ratio of AUD$2.71 per booklet read.

Therefore, on initial examination, it would appear that GP distribution is a more cost effective way of distributing the booklets than mailout. However, this was only a small study and a number of other considerations need to be considered before decisions are made about larger-

scale distributions. First, larger mailouts would become eligible for bulk postage discounts of up to 35% which, in this study, would have improved the cost effectiveness to AUD$4.37 per booklet read for the mailout group.

Second, in the GP group, only the costs incurred by the research group were included in the earlier analyses. However, the GPs themselves would also incur costs if such a program were implemented. For example, the following calculation estimates the impact on an average GP's daily practice over a two week period, assuming that distribution of the booklets took an average of one minute per patient.

The average GP works 46 hours per week[35] and the average consultation duration is 10.5 minutes[36]. Therefore, the average GP would conduct approximately 526 consultations in a two week period. The National Health Survey data indicates that for every 100 consultations conducted in a two week period, 78 separate patients would be seen[27], with the remaining 22 consultations representing repeat visits. Therefore, in their 526 consultations, the average GP would see approximately 410 separate patients in a two week period. Therefore, distributing booklets to each patient would require an extra 410 minutes of consultation time over a two week period. Yet, as a standard consultation fee covers consultations between 5 and 25 minutes duration[37], an increase in the average consultation duration from 10.5 to 11.5 minutes would be unlikely to increase the GP's income accordingly. Therefore, if they continued to work the same number of hours per week, the average GP would be losing the equivalent of 41 standard consultation fees over a two week period. With a standard consultation fee of AUD$24[37], the average GP would stand to lose approximately AUD$984 over the two week period. This translates to an extra cost of AUD$2.40 per booklet distributed, bringing the total cost of distributing 410 booklets to approximately AUD$1,500. Assuming a similar readership rate as that reported earlier (46.4% of those distributed), this would lead to a cost effectiveness ratio of AUD$7.89 per booklet read.

Of course, over a longer period of time, the number of new patients seen would decrease as the number of repeat patients increased. Therefore, the cost effectiveness of GP distribution would appear to be very closely linked with the desired distribution time period - with GP distribution becoming more cost effective over longer distribution periods.

Preferred distribution method

When asked which method (mailout, general practitioner or some other method) would have made them the most likely to keep and use the materials, approximately 60% of recipients nominated the method corresponding to their experimental group; 23% nominated the alternative experimental method; and 15% nominated other methods, including help-yourself stands in shops and distribution by their employer.

Variables associated with booklet utilisation across experimental groups

Chi square analyses were conducted to assess whether relationships existed between a number of attitudinal and demographic variables and having read some of the booklet, irrespective of the distribution strategy. The only variable found to be significant at the critical p value of 0.025 was gender, with 69% of women but only 52% of men reporting having read some of the booklet (continuity-adjusted $\chi^2 = 9.409$, df = 1, p=0.002). Subsequent odds ratio calculations found that women were approximately twice as likely, as men, to have read some of the booklet (OR = 2.10: 95% CI = 1.32-3.31). Other variables analysed but found to have no significant impact on readership were age, marital status, education level, country of birth, employment status, occupational status, gross household income, amount prepared to pay, perceived likelihood of suffering from cancer and cardiovascular disease in the future, perceived preventability of cancers and heart disease and perceived benefits of early detection of cancers.

Variables associated with diary utilisation across experimental groups

Given the small number of respondents having written in the diaries (n=18), it was not possible to conduct statistical analyses to identify variables associated with diary utilisation. However, of those people who had written in the diaries: 72% were female compared with only 55% of the overall sample; 56% were less than 46 years old compared with 71% of the overall sample; and 78% had at least a high school education compared to only 35% of the overall sample.

Perceived acceptability of the materials

The perceived acceptability of the materials was high and z tests found no significant differences between the mailout and GP groups. Over 80% of respondents found the materials very or fairly eye-catching, very or fairly believable, very or fairly interesting and very or fairly easy to read. Approximately 75% of respondents gave the materials an overall rating of very good or excellent, with less than 15% finding anything scary, annoying or confusing in the

booklets. Approximately a quarter of respondents suggested ways of improving the materials, with most of these suggestions recommending improvements to the presentation of the materials, such as including more pictures, improving the quality of the graphics and increasing the use of colour in the materials.

Willingness to pay for the materials

There was no significant difference between the groups in how much they would be prepared to pay for the materials, with recipients reporting a willingness to pay an average of AUD$2.86 (sd = AUD$2.24) for the materials. Nominated prices varied from nothing to AUD$12.

Discussion

This study aimed to assess the impact of two distribution strategies on the recall of receipt, retention, utilisation and perceived acceptability of written health education materials. However, in interpreting the results, a number of limitations of the study need to be considered. First, the relatively small and localised sample may limit the generalisability of the results of this study to the general population. However, this study was conducted as a pilot for a large-scale project involving the distribution of such materials to all adults in 10 small, rural NSW towns.

Second, individuals were not randomly allocated to the experimental conditions: rather, one community was assigned to GP distribution and the other to mailout distribution, raising the question of clustering. In other words, it is possible that individuals in each community would have reacted differently to the materials irrespective of the distribution method involved. Unfortunately, as the main independent variable (distribution method) co-varied with community membership, it was not possible to rule out this possibility. However, while acknowledging this possibility, the authors feel that this would be unlikely to account for the large differences found between the groups, especially as each group showed more positive responses on different issues. The materials were distributed to less than 4% of individuals in each community, thereby eliminating the likelihood of a greater saturation effect in either community. In addition, the two groups were very similar in regards to all the variables associated with booklet utilisation. Finally, it is not apparent how community membership would be likely to affect individuals' responses to such materials.

Third, the assessment of respondents' retention and utilisation of the materials is based on self-report information, which is of unknown accuracy. As a safeguard, respondents reporting having read any of the booklet were asked which sections they considered to be the most useful. Only 13% of such respondents could not answer the question, with most of these being people who reported not having read all the booklet and, thus, felt unable to make such a decision. Similarly, respondents reporting having written in their diaries were asked to bring them to the phone and tell the interviewer which sections they had completed. Only 1 (6%) such respondent was unable to do so. Therefore, it would seem that inaccurate reporting of retention and utilisation were not major problems in this study. In addition, should such inaccuracies exist, there was no reason to expect differential rates of inaccuracies from the two groups.

Fourth, this study compared two slightly different samples: one was a general population sample and the other was a patient sample. This is not believed to be a significant problem as approximately 80% of the NSW population see a medical practitioner at least once every 12 months[27]: a proportion not dissimilar to the 86% of the population eligible for inclusion in the electoral register[26]. In addition, the demographic characteristics of the two groups of respondents were very similar. The only significant difference was the higher proportion of white collar workers in the GP group. This is likely to have been due to the surgeries being located in a relatively middle class area of a comparatively working class town, but was not seen to be a serious problem as occupational status was not found to be associated with booklet utilisation (continuity adjusted $\chi^2 = 1.399$; df = 1: p=0.237).

This research aimed to assess the impact of distribution strategy on the recall of receipt, retention, utilisation and perceived acceptability of written health education materials. High consent rates were achieved from both participant groups and two areas showed significant differences between the groups.

First, people were more likely to recall receiving the materials if they received them from their general practitioner as opposed to through the mail. This discrepancy would be partly due to inaccuracies in the electoral register address information which would have led to people genuinely not receiving the materials. Such inaccuracies are unavoidable considering the time lag between the collection and utilisation of electoral register information. Similar rates of inaccuracies have been found in other studies using random selections from the electoral register[38] and must be considered a natural consequence of such a distribution method.

Second, people were more likely to report having kept the materials if they received them from their general practitioner as opposed to through the mail. This may be expected since general practitioners are seen as a trusted and appropriate source of health information[39-41] and, despite attempts to personalise the mailout, it remained a form of unsolicited mail, which is frequently received and discarded unread.

However, as shown earlier in Figure 1, when comparing electoral register mailout with general practitioner distribution over a six month period, the main benefit offered by the former method was the higher rate of accessibility, with approximately 86% of the population accessible by mail but only approximately 56% accessible by general practitioners within a six month period[26,27]. Applying the findings from this study regarding the proportion of individuals recalling receipt, keeping and reading the materials, the net result was that approximately 44% of the population would have been exposed to the health education message by mailout distribution but only approximately 28% would have been exposed to it by general practitioner distribution over a six month period.

Of the potential predictors investigated, gender was the only variable significantly associated with booklet utilisation, with women being approximately twice as likely to report having read some of the booklet as men. This is not a surprising result as women are frequently found to be more compliant than men in many health-related areas. For example, in Australia, women are less likely than men: to be smokers (25% versus 32%)[42]; to have a high-risk alcohol intake (1.6% versus 7.1%)[43]; to be overweight or obese (34.5% versus 44.0%)[43]. Similarly, women tend to be more likely than men to participate in health-related surveys[39,44], indicating a greater degree of interest in health issues.

As with most other studies which have investigated the perceived acceptability of these types of materials[1,2,4-6,8,10,12,13,17,18], a high rate of perceived acceptability was reported. The only major criticism aimed at the materials was the quality of their presentation. As this study was conducted as a pilot for a large-scale project involving the distribution of such materials to 12,500 adults, the materials were presented in a pre-final form in order to allow recommended modifications to be made prior to large-scale printing. Despite their draft format, respondents reported a willingness to pay an average of AUD$2.86 for the set of materials, which cost approximately 90 cents per set to produce.

One question left somewhat unanswered by this study is whether distribution strategy would have an impact on behaviour initiated by the materials. Respondents were asked whether they had visited, or intended to visit, a general practitioner and whether they had altered their lifestyle in any way as a result of receiving these materials. No significant differences were found between the two strategies, with 13.5% of the mailout group and 8% of the GP group (continuity-adjusted $\chi^2 = 1.915$, df = 1, p>0.025) reporting having visited, or intending to visit, a general practitioner; and 7.6% of the mailout group and 8.7% of the GP group (continuity-adjusted $\chi^2 = 0.021$, df = 1, p>0.025) reporting having altered their lifestyles. This question was not a major issue in this study and, given the short follow-up period, these results are far from conclusive. However, as discussed earlier, this study represented a pilot for a large randomised controlled trial to evaluate the effectiveness of written health education materials at increasing rates of preventive and screening behaviours for cancer and cardiovascular disease. This data is currently being analysed and these results will be reported in the literature as soon as possible.

In summary, the two distribution strategies studied here had differential impacts on the recall of receipt, retention and utilisation of written health education materials. However, when planning to distribute written health education materials, it is also necessary to consider additional factors, such as the speed and cost of distribution, the target audience and the expected rates of utilisation and behaviour change.

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Table 1: Demographic characteristics of the two groups of participants

Characteristic	Mailout Group % (N=221)	GP Group % (N=165)
Gender		
Male	46.6	43.6
Female	53.4	56.4
Age		
18-40 years	54.3	57.6
41+ years	45.7	42.4
Marital Status		
Married/defacto	70.1	79.4
Separated/divorced/widowed/never married	29.9	20.6
Education level		
Not finished High School	24.9	17.0
Finished School/Higher School Certificate*	51.6	55.8
University degree, etc	23.5	27.3
Place of birth		
Australia	94.1	95.1
Elsewhere	5.9	4.9
Employment status		
Employed/home duties/student	90.5	85.5
Retired/unable to work	5.9	10.9
Unemployed	3.6	3.6
Occupation†		
White collar	35.8‡	55.4‡
Blue collar	64.2	44.7
Household Income		
< AUD$770/week	68.7	66.3
AUD$770+/week	31.3	33.7

* -in Australia, the School Certificate is taken at age 15-16 years and the Higher School Certificate at 17-18 years.

† -Occupational status is based on the Australian Standard Classification of Occupation codes[45] used by the Australian Bureau of Statistics. Respondents falling into the Managers & Administrator, Professional, Para-professional, Clerk and Service and Personnel Worker codes were classified as white collar while respondents falling into the Tradesperson, Plant or Machine Operator and Labourer codes were classified as blue collar. Data includes only respondents who have ever worked outside the home: mailout group - N=201; GP group - N=159.

‡ -significant difference in occupation status between groups, continuity adjusted χ^2=12.927, df=1, p<0.001.

Table 2:Recall, retention and utilisation rates between experimental groups

Variable	GP Group	Mailout Group	χ^2	p
Received materials?	(N=165)	(N=221)		
Yes	90.9%	77.4%	11.408	p=0.001
No	9.1%	22.6%		
Kept booklet?	(N=150)	(N=171)		
Yes	93.3%	75.4%	19.176	p<0.0001
No	4.7%	22.2%		
Kept diary?				
Yes	96.0%	76.6%	21.308	p<0.0001
No	4.0%	22.8%		
Read some of booklet?				
Yes	56.0%	66.7%	3.409	p>0.025
No	44.0%	33.3%		
Written in diary?				
Yes	7.3%	4.1%	0.980	p>0.025
No	92.7%	95.3%		

NB:Totals may not add to 100% due to some missing data.
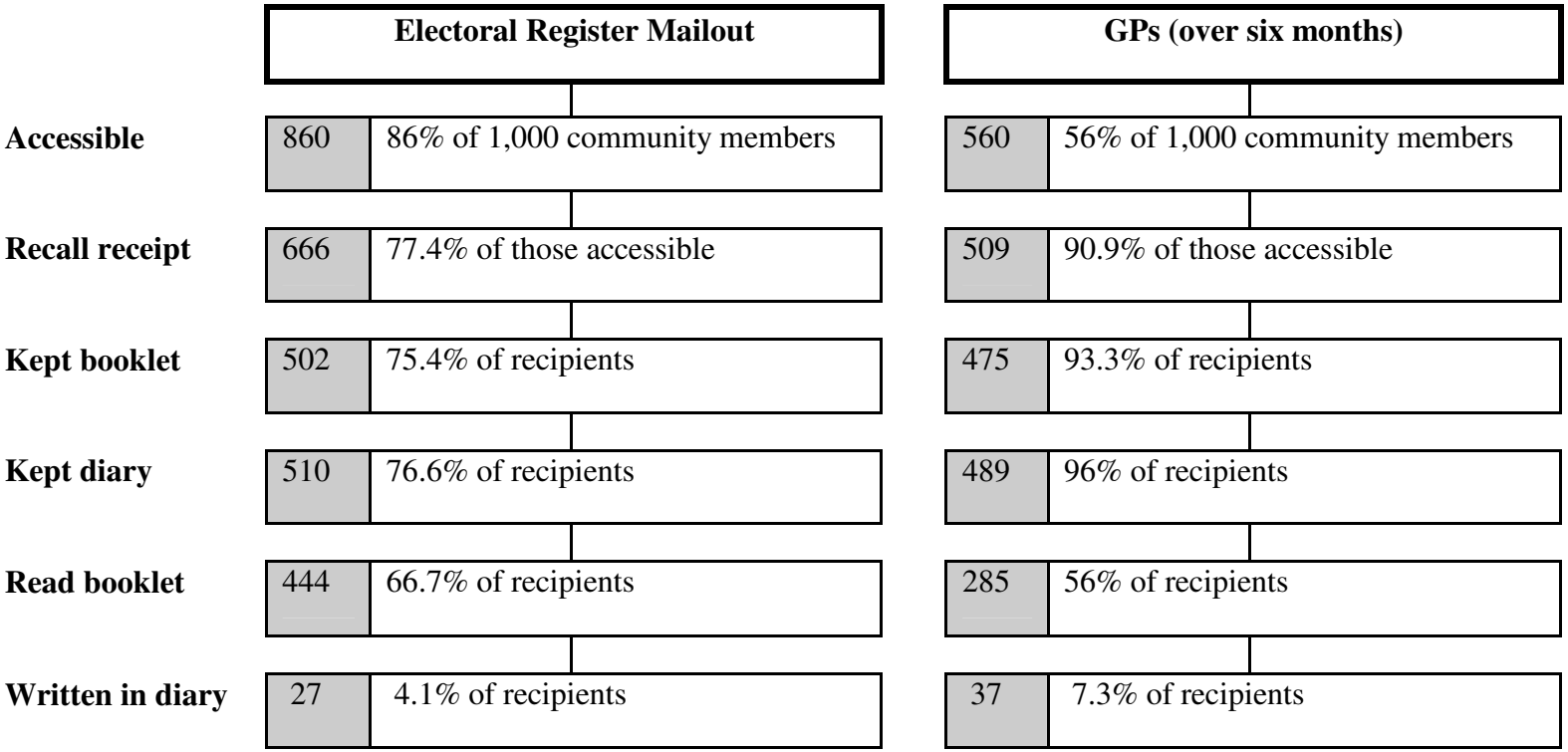
Figure 1:Predictions of the proportion of 1,000 community members, aged 20-60 years, who would be accessible by and the receipt, retention and utilisation rates achieved by the two distribution strategies.