

## Recruitment for a provincial asthma study

### *Participation of network and non-network primary care physicians*

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More than 80% of all physician-patient encounters occur in private offices,<sup>1</sup> but most clinical studies take place in tertiary care hospitals. Owing to the differences between community and academic practices, research findings in tertiary care hospitals might not be generalizable to community-based practices.<sup>2,3</sup> Some have advocated for practice-based research in order to address the growing gap between ideal and actual care.<sup>4</sup>

One barrier to practice-based research is the difficulty of recruiting primary care physicians as participants.<sup>5</sup> Reasons for poor participation rates include insufficient time, lack of interest, and inadequate resources for research.<sup>5-7</sup> Primary care

networks were developed partially in response to these challenges.<sup>3</sup> Unfortunately, little has been published on how well these networks work.<sup>8</sup>

It is unclear whether members of networks are more likely to participate in research than non-members. This paper describes the experiences of the Alberta Strategy to Help Manage Asthma (ASTHMA) in recruiting primary care physicians for community-based research aimed at identifying gaps in asthma care.

## METHODS

On behalf of ASTHMA, the Alberta Family Practice Research Network (AFPRN) mailed packages to all primary care physicians (both members and non-members of AFPRN) in Alberta (2572 physicians). The initial mailing contained a letter from ASTHMA, a letter of endorsement from the AFPRN, and a self-addressed stamped postcard that physicians interested in participating were asked to return. Three weeks after the mailing, a reminder was sent.

Those who responded positively were contacted to confirm their intention to participate and to arrange a meeting. During the meeting, a representative from ASTHMA provided an overview of the study, outlined expectations of participants, and addressed concerns. Informed consent was obtained from those willing to participate. Physicians practising in rural areas were contacted by telephone to discuss the study and were sent a package of study material and consent forms. They were asked to review the material and return the signed consent forms in the prepaid envelope.

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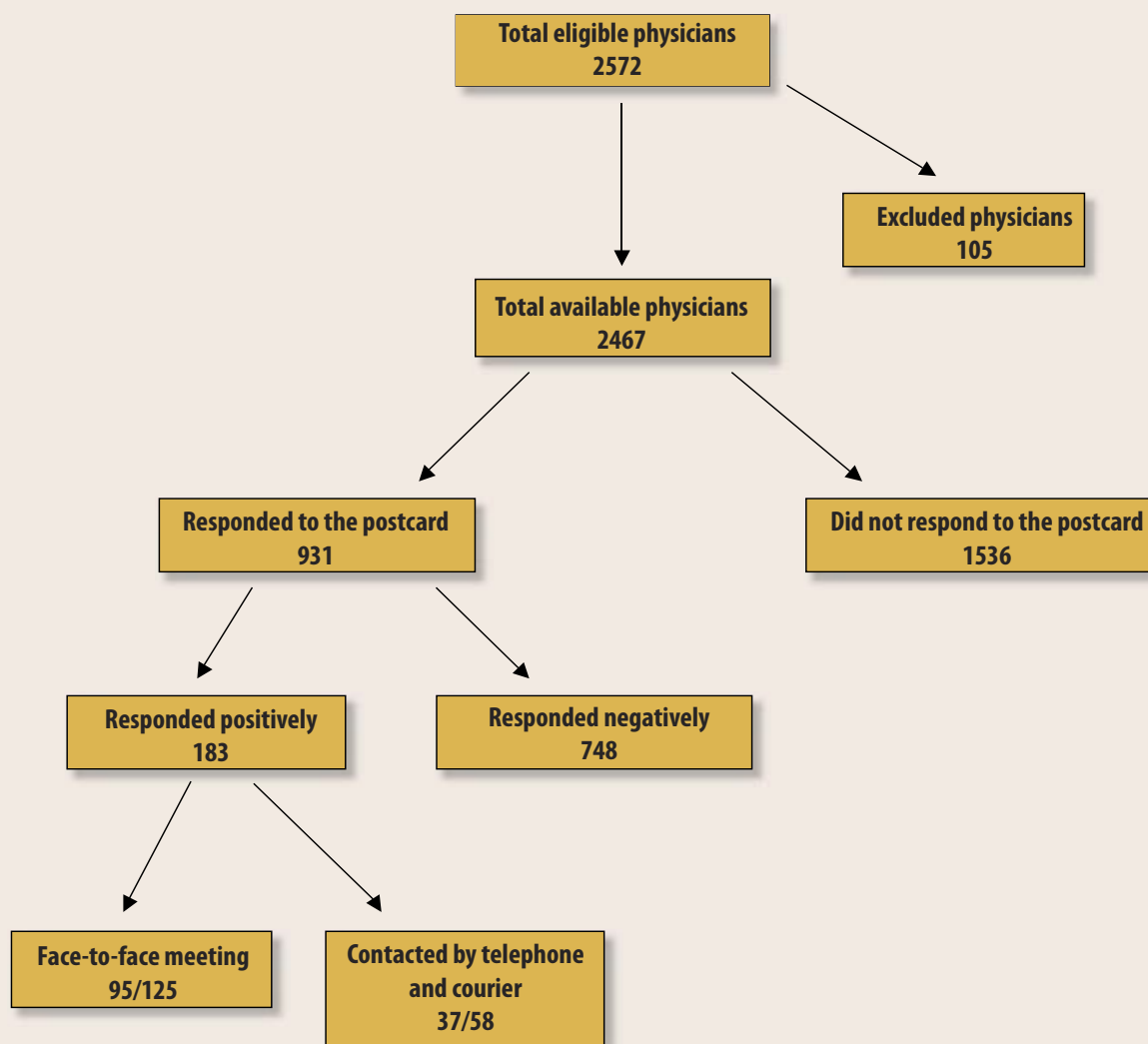
We used  $\chi^2$  tests for comparing dichotomous variables and  $t$  tests for comparing continuous variables of members and non-members of AFPRN. Odds ratios (OR) and 95% confidence intervals (CI) were calculated using standard methods. All analytic tests were two-tailed, and a  $P$  value of  $<.05$  was considered statistically significant.

Ethics approval was granted by the Alberta Health Research Ethics Board and the University of Calgary Conjoint Health Research Ethics Board.

## RESULTS

Of the 2572 physicians sent the initial package, 105 (4.1%) were excluded because of incorrect mailing addresses (59, 2.3%), incorrect characterization of practices (7, 0.3%), and other reasons (39, 1.5%). Of the remaining 2467 eligible physicians, 931 (37.8%) responded: 183 responded positively; 748 responded negatively. **Figure 1** shows the recruitment process. Members of AFPRN were more likely to respond than non-members were

**Figure 1.** Summary of the process for recruiting physicians



(OR 1.38, 95% CI 1.12 to 1.71,  $P < .01$ ), and network members were more likely to respond positively to the invitation than non-members were (OR 2.40, 95% CI 1.64 to 3.57,  $P < .001$ ) (Figure 2).

In stage 2 of the recruitment process, we contacted all physicians who gave written consent for a data analyst to abstract information from the charts of their patients with asthma. Face-to-face encounters had produced a consent rate of 76.0%; mailed requests had produced a consent rate of 63.8% (OR comparing consent rates 1.80, 95% CI 0.92 to 3.53,  $P .09$ ).

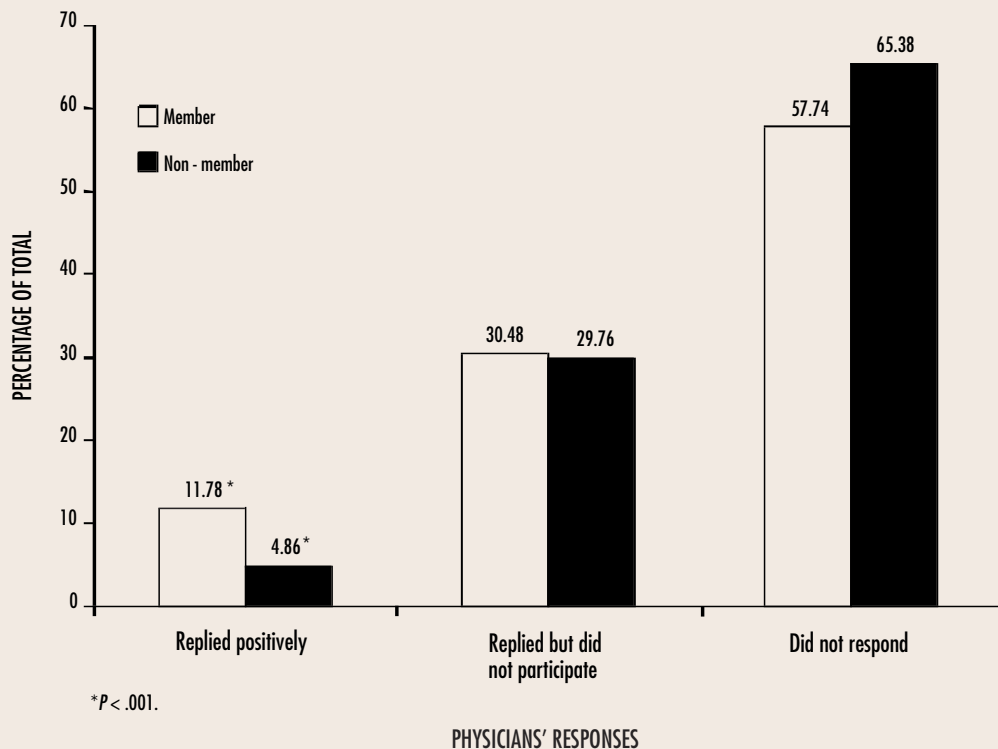
To compare our findings with those published in the literature, we searched MEDLINE using key words "primary care network" OR "family physician network" AND "research" and retrieved 482 articles. We hand-searched the bibliographies of relevant articles and contacted experts in the area. Yet we could not find any published studies that directly compared response rates of network members with those of non-members for participation in research.

Our study had several interesting findings. First, the mailing produced a modest response rate of 37.8%; of which only 19.7% expressed a wish to participate. Once physicians had indicated a willingness to participate, however, nearly three quarters maintained the commitment when approached in person for access to their patient charts. This suggests that a general mailing can be used as a reasonable first step for identifying a pool of primary care physicians for recruitment.

Second, although overall response to our invitation was modest, we had better responses from network members than non-members. The reasons are not entirely clear. Network members might have had more motivation and enthusiasm for research. Also, they (and their staff) might have had more experience and better research infrastructure than non-members, which would make it easier to conduct research at their centres.<sup>6</sup>

Third, we found that face-to-face meetings yielded slightly higher rates of consent (76.0%)

**Figure 2.** Response rates to initial mailed invitations: Primary care physicians who were and were not members of the research network had noticeably different response rates.



than requests sent by courier did (63.8%). These data are consistent with prior observations that personal meetings get better response rates than non-personal contact methods do.<sup>6,7</sup> Nevertheless, when personal contact is impractical, contact by courier is a reasonable method of recruitment.

This study has several potential limitations. Because we did not have a comparison group for the initial recruitment method, we do not know whether use of other methods would have produced a higher response rate. While our recruitment strategy was effective for this specific project, we cannot speculate whether it would be suitable for studies on other research questions. After careful consideration, we decided not to use personal contact and other methods because of their high potential for recruitment selection bias.

In summary, our method of recruitment is reasonable for engaging primary care physicians in research. Network membership is a strong predictor of participation. ❁

### Acknowledgment

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### Contributors

**Dr Sin**, Project Officer of the Alberta Strategy to Help Manage Asthma (ASTHMA) Project, **Dr Man**, Principal Investigator of the ASTHMA Project, and **Dr Cowie**, co-investigator of the ASTHMA Project, conceived and designed the study and prepared the report for publication. **Ms Sharpe**, **Ms Andrews**, **Dr Bell**, **Ms Nilsson**, **Dr Spier**, **Mr Svenson**, **Dr Trachsel**, and **Dr Tsuyuki** helped gather and interpret the data and reviewed and approved the report for publication.

### EDITOR'S KEY POINTS

- Recruitment of primary care physicians for studies is difficult but important for answering questions in community settings.
- In a community study of asthma, a general mailing to all family physicians in Alberta produced a 38% response rate. Of these, 20% (7% of the original sample) were actually interested in participating in the study.
- Members of the Alberta Family Practice Research Network (AFPRN) were more likely to respond to the initial mailing and be recruited into the study than non-members were. Face-to-face recruitment was slightly more successful than mailed requests.

### POINTS DE REPÈRE DU RÉDACTEUR

- Il est difficile mais important de recruter des médecins de première ligne pour des études en vue d'obtenir des réponses aux questions dans les milieux communautaires.
- Dans une étude sur l'asthme dans la communauté, un envoi postal général à tous les médecins de famille en Alberta a généré un taux de réponse de 38%. De ce nombre, 20% (7% de l'échantillon original) étaient effectivement intéressés à participer à l'étude.
- Les membres du réseau de recherche en pratique familiale de l'Alberta (AFPRN) étaient davantage susceptibles de répondre à l'envoi postal et d'être recrutés pour participer à l'étude que ne l'étaient les non-membres. Le recrutement en personne était légèrement plus fructueux que les sollicitations par la poste.

### Competing interests

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