

# Establishing the ACORN National Practitioner Database: Strategies to Recruit Practitioners to a National Practice-Based Research Network

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## ABSTRACT

**Objectives:** The purpose of this paper is to report on the recruitment and promotion strategies employed by the Australian Chiropractic Research Network (ACORN) project aimed at helping recruit a substantial national sample of participants and to describe the features of our practice-based research network (PBRN) design that may provide key insights to others looking to establish a similar network or draw on the ACORN project to conduct sub-studies.

**Methods:** The ACORN project followed a multifaceted recruitment and promotion strategy drawing on distinct branding, a practitioner-focused promotion campaign, and a strategically designed questionnaire and distribution/recruitment approach to attract sufficient participation from the ranks of registered chiropractors across Australia.

**Results:** From the 4684 chiropractors registered at the time of recruitment, the project achieved a database response rate of 36% (n = 1680), resulting in a large, nationally representative sample across age, gender, and location. This sample constitutes the largest proportional coverage of participants from any voluntary national PBRN across any single health care profession.

**Conclusions:** It does appear that a number of key promotional and recruitment features of the ACORN project may have helped establish the high response rate for the PBRN, which constitutes an important sustainable resource for future national and international efforts to grow the chiropractic evidence base and research capacity. Further rigorous enquiry is needed to help evaluate the direct contribution of specific promotional and recruitment strategies in attaining high response rates from practitioner populations who may be invited to participate in future PBRNs. (*J Manipulative Physiol Ther* 2016;39:594-602)

**Key Indexing Terms:** *Chiropractic; Recruitment; Database*

## INTRODUCTION

To date, research on chiropractic in Australia and elsewhere has been largely fragmented and uncoordinated and there has been a lack of strategic “big-picture” planning.<sup>1</sup> In response to these circumstances, the Australian Research Centre in

Complementary and Integrative Medicine (ARCCIM) at the University of Technology Sydney—a research-intensive center subjecting complementary health care to rigorous examination using critical public health and health services research designs and methods—conceived and developed the Australian Chiropractic Research Network (ACORN) practice-based research network (PBRN) project, with the financial support of the Chiropractors’ Association of Australia (CAA), aimed at helping grow a sustainable research culture for the profession.

The ACORN project is independently designed, led, and conducted by senior researchers at ARCCIM. An ACORN PBRN Steering Committee was established consisting of a number of key stakeholders including academics/methodologists and chiropractors to provide guidance and planning for the project and to ensure that the research approach and activities appropriately reflect aspects of daily routine care.<sup>2</sup> The overarching aims of the ACORN project, which were developed by the ACORN PBRN Steering Committee and draw on previous PBRN initiatives,<sup>3-5</sup> are to

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facilitate closer engagement and communication between chiropractors and researchers; advance broad rigorous scientific investigation to inform chiropractic patient care; conduct and facilitate research on chiropractic that is practice- and practitioner-relevant; promote and grow critical research capacity; and facilitate and encourage coordinated research initiatives and collaborations across Australian chiropractic. For a more detailed overview of the ACORN project design and project please, see a previous publication.<sup>1</sup>

Although PBRNs often share some core features, they nevertheless manifest in many different ways.<sup>6,7</sup> The ACORN project is built around a particular PBRN approach and design—a *sub-study model*. The vast majority of PBRNs have typically adopted what we here refer to as a *registry model*, whereby initial data collection is focused on establishing a centralized, coordinated patient record management system.<sup>4,8</sup> This approach tends to lend itself to patient-focused data collection, allowing direct access to patient care and outcomes through time and consistently across PBRN practice sites. However, one limitation of an initial PBRN registry is that subsequent, related or new research interests are not easily accommodated once the patient record management system is operationalized, and it is often undesirable and inconvenient to introduce revisions to the established data collection management system.<sup>8</sup>

In contrast, the ACORN project initially employs what we call a sub-study model to PBRN design whereby initial data collection is focused exclusively on practitioner-relevant information collected via self-report aimed at establishing a practitioner PBRN database. Although no initial patient record management system is developed—this is one limitation of a sub-study PBRN model, in that practitioners are not facilitated to collect data from patients in the initial fieldwork phase, and the study approach must rely on practitioner patience for success—this does not mean that a patient record management system cannot be introduced at a later date in a sub-study PBRN. Under the sub-study model, the ACORN project accommodates and actively encourages independent sub-studies and allows for autonomous data collection tools, which can collect data via patients or patient management records. This model therefore affords the ACORN PBRN the initial flexibility to accommodate a much greater range of investigations around many different research areas than is possible via PBRNs adopting a registry model.

In the case of ACORN, a sub-study approach was deemed best suited to a professional terrain where there is no existing mandatory or unified patient record management system. Although research indicates that adoption of electronic patient records in health care more generally faces well-established hurdles, including time and cost, technological design, implementation, and patient privacy challenges,<sup>9</sup> it is arguably particularly challenging when faced with a professional group such as chiropractors in Australia where the current use of patient record management systems is potentially diverse and ad hoc.<sup>10</sup> Australian chiropractors practice exclusively in the

private sector of the health care system and operate as either independent businesses or member practices of relatively small networks of comanaged businesses.<sup>11</sup> With this type of organizational profile, it is not feasible to expect or demand chiropractors in Australia who may join a voluntary PBRN, especially on a national scale, to be required also to sign up to a specific preallocated patient record management system that will attract a more significant financial and professional burden.

All PBRNs are relationship based, and their establishment is challenging,<sup>6</sup> requiring much planning<sup>12</sup> and substantial time and resource commitment.<sup>13</sup> Establishing a PBRN includes the specific task of persuading what may be a busy, task-oriented, and “research-distant” practitioner population of the need to participate both initially and on an ongoing basis.<sup>14</sup> Unfortunately, although a small number of authors have begun to discuss the experience and challenges of establishing PBRNs,<sup>8,15</sup> the vast majority of literature around this topic is focused on either maintaining the PBRN membership<sup>16</sup> or successfully launching and implementing studies once a network has been established.<sup>2,12</sup>

The promotion and recruitment strategies employed in the ACORN PBRN are by their very nature, and in line with good design, tailored to the circumstances of the profession and its practitioner base. Yet the experience of designing and undertaking such a PBRN, both in terms of scale and focus, highlights a number of features that may be of assistance to others looking to develop PBRNs and employ PBRN recruitment best practice within chiropractic and beyond.

Two important, interrelated but distinct objectives of the ACORN PBRN were<sup>1</sup> to recruit a substantial spread and volume of the chiropractic community—a large, nationally representative sample—to the ACORN PBRN database and<sup>2</sup> to undertake effective communication and engagement with the relevant practitioner base. With these objectives in mind, the ACORN Project Steering Committee designed and employed a number of promotional and recruitment strategies.

The purpose of this paper is to report on the recruitment and promotion strategies employed by the ACORN project aimed at helping recruit a substantial national sample of participants and to describe the features of our PBRN design that may provide key insights to others looking to establish a similar network or draw on the ACORN project to conduct sub-studies.

## METHODS

The ACORN PBRN was approved by the University of Technology Sydney Human Ethics Committee (approval # 2014000027) and received official registration (2015) as an international PBRN with the Agency for Healthcare Research and Quality (AHRQ) PBRN Resource Center. Next, a number of promotional and recruitment features employed by the ACORN PBRN (branding, practitioner-focused promotional

## Objectives of the ACORN PBRN

- 1: To recruit a substantial spread and volume of the chiropractic community - a large nationally representative sample - to the ACORN PBRN database.
- 2: To undertake effective communication and engagement with the relevant practitioner-base.

**Fig 1.** Objectives of the ACORN PBRN and ACORN website. ACORN, Australian Chiropractic Research Network; AHPRA, Australian Health Practitioner Regulation Agency; PBRN, practice-based research network.

campaign, questionnaire and invitation pack design, and the distribution and recruitment approach), which were developed to help meet the ACORN PBRN objectives, are outlined.

### Branding

The branding design adopted for the ACORN PBRN was developed to help meet both objectives 1 and 2 as outlined earlier (Fig 1). As with any practice-based research, it was vital for the ACORN project to establish and maintain effective communication and engagement with the relevant practitioner base<sup>14</sup> and that the project was sensitive to the stakeholders involved in daily routine care. It was also essential for the success of the ACORN PBRN that the project attract participation from a broad representation of registered chiropractors across Australia regardless of professional membership. As such, the ACORN project invested substantial time (more than 12 months) and resources in designing and fine-tuning the branding and promotion of the project to the national chiropractic community. The ACORN branding was designed by the ACORN Project Steering Committee in close collaboration with the Marketing and Communication Unit of the University of Technology Sydney to produce a clear and easily identifiable brand that would communicate the message of “growth” central to the ACORN PBRN initiative (Fig 2) and in line with the overarching aim of the ACORN PBRN to help grow the evidence base and research capacity of Australian chiropractic. This branding was then consistently employed across e-mail correspondence, hard copy mail-outs, conference presentations, and the ACORN website ([www.acorn-arccim.com](http://www.acorn-arccim.com)). The branding was also employed for a range of project merchandise, including ACORN project banners, postcards, stickers, and posters distributed throughout the Australian chiropractic community.

### Practitioner-Focused Promotional Campaign: Explaining the Project and Encouraging Participation

Alongside other important tasks, an initial period of more than 12 months was dedicated to promoting the ACORN PBRN to the practitioner base before active recruitment to

help meet objectives 1 and 2 as outlined earlier (Fig 1). To this end, the ACORN PBRN adopted a multifaceted promotional campaign strategy to help explain the project and its benefits to both individual practitioners and the wider professional community. This campaign also sought to encourage participation among *all* Australian registered chiropractors by providing key messaging sensitive to a diversity of practice models and interests found across the landscape of the profession. The key elements of the strategy are outlined and discussed next.

As sole funders of the ACORN PBRN, the CAA was duly acknowledged and their logo incorporated in relevant promotional material. The CAA has both national and regional (state-based) infrastructure, and the ACORN project was able to draw on these regional and national resources to help promote the project and participation among CAA members. Group e-mails were forwarded via CAA networks at regular intervals over the promotional period and every few weeks over the recruitment period. Most group e-mails contained a progress overview for the project. However, in an attempt to encourage interest among the practitioner base, and in line with e-mail correspondence and reminders employed in previous PBRN work,<sup>17,18</sup> the content and theme of some group e-mails varied over time. For example, one group e-mail contained an endorsement of the ACORN project from the CAA chief executive officer, and another contained 3 volunteered testimonials from established, well-respected senior practitioners who were also CAA members urging others in the CAA to participate.

In addition to group e-mails, the ACORN project team reported regular news items and progress reports for the CAA national newsletter, *The Australian Chiropractor*, which is distributed electronically to all members. Finally, with regard to the CAA membership, key ACORN project researchers attended a number of national and regional (state-based) meetings and events and presented on the ACORN project at these events.

Given that one objective of the ACORN project was to achieve a nationally representative sample of participants, it was essential that the project seek participation among those chiropractors beyond the CAA membership, and to this



**Fig 2.** The ACORN logo. ACORN, Australian Chiropractic Research Network.

end, targeted promotional campaigns to members of the Chiropractic and Osteopathic College of Australia (COCA)—another professional association in Australian chiropractic—were undertaken. Promotional material was distributed with permission of the COCA executive, and similar promotional initiatives were undertaken as with the CAA membership. Regular group e-mails, news items, and project progress reports in the national COCA newsletter were employed. Unfortunately, because of logistical challenges, we were unable to distribute targeted promotional material such as group e-mails to those chiropractors who were nonmembers of both professional associations. Instead, we were able to identify these nonmembers via publically available data and to distribute recruitment invitations via the information obtained.

The ACORN project was granted permission by designated Continuing Professional Development (CPD)<sup>19</sup> assessors via the CAA. With regard to the ACORN project, CPD points were limited to only 1 hour for completion of shorter tasks such as the completion of the invitation pack (including completion of the consent form and 2-page practitioner questionnaire) and the completion of subsequent sub-study practitioner and patient questionnaires. Available CPD hours are unlimited for sub-study tasks that require more time investment and practitioner involvement, such as participation in diagnostic procedures or specific treatment methods and the recording of outcome measures. The ACORN website not only houses details of ACORN-related CPD point allocation but also provides an online form through which practitioners can record their ACORN CPD activities as these tasks are completed.

Other general promotional strategies involved ACORN project presentations at both national and regional CPD events and other chiropractic-relevant seminars and conferences across Australia as and when convenient over the recruitment period. Furthermore, the official ACORN website included links to contemporary PBRN literature and other relevant resources, and video clips were also produced and either e-mailed via professional associations or uploaded onto the ACORN website. These materials introduced the project and provided an overview of the value and potential benefits of participation, with a number of the promotional group e-mails alerting potential participants of these resources. A one-off

promotional news item was distributed via the Australian Health Practitioner Regulation Agency (AHPRA) newsletter near the close of the recruitment period in an attempt to reach and recruit as many additional chiropractors, especially those beyond professional association membership, across Australia to the ACORN PBRN as possible.

### Questionnaire and Invitation Pack Design

The ACORN recruitment invitation pack consisted of both a practitioner questionnaire and a consent form for the ACORN national practitioner database. It was possible for respondents to complete the questionnaire but not consent to participate in the ACORN PBRN. However, only those participants who completed both the questionnaire and the consent form were recruited to the ACORN PBRN database.

The questionnaire was designed to collect a broad range of information regarding practitioner and practice characteristics. The questionnaire content was designed so as to provide ample opportunity to inform and accommodate a wide range of subsequent sub-study enquiries while also ensuring that the questionnaire was not so extensive and time consuming to complete as to significantly limit the response rate.<sup>20</sup> The ACORN Steering Committee, led by ARCCIM researchers with input from registered chiropractors, conducted pilot testing of the questionnaire design with chiropractors in the field. The chiropractors involved in pilot testing were invited to comment and provide feedback on all aspects of the questionnaire—the topics to be covered, the wording of the content, the formatting, and the broader issues around ease and duration of completion. After this pilot testing, the finalized questionnaire comprised 21 items.

### Distribution/Recruitment Approach

One major task for the ACORN Project Steering Committee was to decide the method by which to recruit registered chiropractors via the invitation pack (database questionnaire and ACORN national practitioner database consent form). As with most contemporary survey research, a major consideration was whether to recruit via hard copy mail-out distribution, online distribution, or both.<sup>20,21</sup> It was agreed among the ACORN Steering Committee to employ both online (using the SurveyGizmo tool) and hard copy mail-out distribution to provide each chiropractor with the opportunity to participate in the project and complete the invitation pack via either method.

ACORN PBRN invitation pack mail-out was via both CAA and COCA membership (with the professional associations' national headquarters acting as the conduit between the ACORN project team and their members) as well as a profession-wide mail-out via publicly available information to invite those chiropractors who were nonmembers. Four weeks after initial invitation pack mail-out, 1 reminder invitation pack was distributed to all registered chiropractors. The recruitment

period for ACORN was from March 2015 to July 2015, and the online questionnaire and consent form were available via the ACORN website over this same period. This extensive recruitment period was employed to provide a well-defined first round for recruitment. Follow-up recruitment to help maintain and update the ACORN PBRN national practitioner database is planned for future years.

A number of group e-mails to both CAA and COCA memberships also contained embedded links directly to the online questionnaire; such a design provides a highly convenient and direct means by which potential participants can access the questionnaire and consent form.<sup>20</sup> Finally, in addition to the mail-out and online recruitment, organizers of a number of regional conferences and events targeting chiropractor audiences also requested the opportunity to distribute copies of the ACORN invitation pack to their delegates.

## RESULTS

The questionnaire pilot testing indicated that the instrument was considered acceptable and clear to chiropractors in the field and took an average of 9 to 14 minutes for chiropractors to complete, an average completion time also supported by the online SurveyGizmo software.

The ACORN PBRN project funding (a total of just greater than AUD\$460,000) was allocated for key features such as stationary, national mail-out and reminders, promotion and design material and campaigning, computer software, and dedicated research personnel as required to successfully manage and administer the day-to-day working and completion of the project. All recruited participants completed both consent forms and questionnaires. There were 4684 registered chiropractors in Australia at the time of the ACORN recruitment period, and the ACORN project achieved a PBRN database response rate of 36% (n = 1680). This sample constitutes the largest coverage of participants from any voluntary national PBRN across any health care profession worldwide.

A comparison between the ACORN PBRN database membership and AHPRA chiropractic database membership<sup>22</sup> is presented in Table 1. The recruited chiropractors to the ACORN PBRN database are representative of the broader national population of Australian chiropractors with regard to key indicators. There is no statistically significant difference between the ACORN PBRN database and AHPRA chiropractic database in terms of gender distribution or age. Although the ACORN PBRN database is also generally representative of the wider national chiropractic population regarding practice location, there are slight differences between the databases in terms of the distribution of state of residence with the ACORN PBRN database slightly over-represented by chiropractors from South Australia (P = .023). With regard to professional membership, 1098

**Table 1.** Comparison of ACORN and AHPRA Membership Based on Demographic Characteristics

Characteristics		ACORN	AHPRA <sup>a</sup>	P
		Database	Database	
		%	%	
<b>Sex</b>	Male	63	63	.956
	Female	37	37	
<b>Age, y</b>	<30	16	18	.134
	30-39	31	30	
	40-49	26	26	
	50-59	18	16	
	60+	9	10	
<b>State</b>	New South Wales	34	35	.023
	Victoria	25	26	
	Queensland	15	16	
	Western Australia	13	13	
	South Australia	9	7	
	Australian Capital Territory	2	1	
	Tasmania	1	1	
	Northern Territory	1	1	

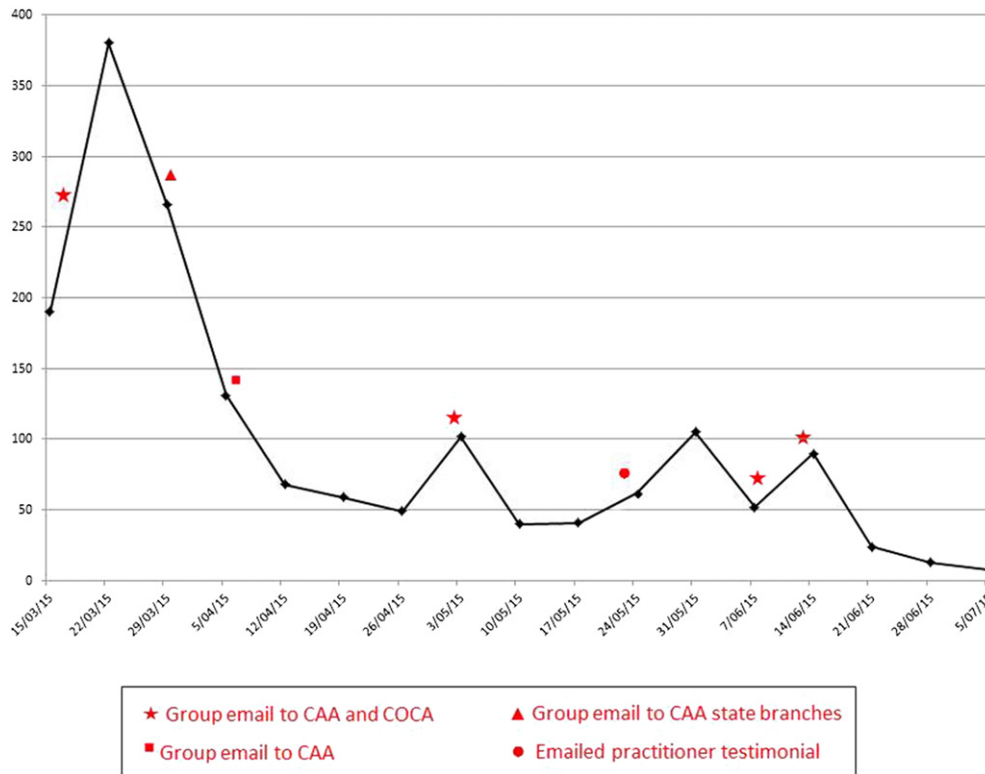
ACORN, Australian Chiropractic Research Network; AHPRA, Australian Health Practitioner Regulation Agency.

<sup>a</sup> Chiropractic registrant data: March 2015, Chiropractic Board of Australia, Melbourne.

ACORN PBRN practitioners held only CAA membership, 197 participants held only COCA membership, and 127 held membership of both CAA and COCA.

Of the 1680 chiropractors in the ACORN PBRN database, 59% were recruited via the paper-based invitation pack, whereas 41% were recruited via the online invitation pack. There were no significant differences between mode of recruitment and gender (P = .158) or state of residence (P = .359), but there was a significant difference between mode of recruitment and age (P < .001), whereby younger chiropractors were more likely to use the online method of recruitment (data not shown).

Figure 3 shows the number of chiropractors per week who consented to be included on the ACORN PBRN database. In the first week of the recruitment period, 11% of the ACORN PBRN database practitioners were recruited, and a total of 58% were recruited within the first month. The e-mails distributed through various sources appear to have affected the recruitment throughout the recruitment period, which is in line with that documented in previous PBRN projects.<sup>17</sup> Note that the peak number of responses occurred in the week commencing March 22 and followed group e-mails to CAA and COCA members in the week before. Similarly, a group e-mail distributed via CAA state branches was followed a week later by the second highest recorded number of responses over the recruitment period (March 29). Further jumps in response numbers that occurred in weeks beginning May 3 and June 14 were preceded by group e-mails to CAA and COCA members in the prior week. Another significant increase in response numbers occurred in the week



**Fig 3.** Frequency of ACORN recruitment per week. ACORN, Australian Chiropractic Research Network; CAA, Chiropractors' Association of Australia; COCA, Chiropractic and Osteopathic College of Australia.

commencing May 31, which was preceded by an e-mailed practitioner “champion” testimonial.

## DISCUSSION

Although a formal assessment and precise measurement of the influence of individual ACORN PBRN promotional and recruitment strategies toward achieving the level of practitioner engagement was not undertaken, it is of benefit to consider and reflect on the contribution different strategies and features may have made in the pursuit of obtaining a large, nationally representative sample of chiropractors for the ACORN PBRN.

Establishing an ACORN Steering Committee that included both academics/methodologists and chiropractors to oversee the design and progress of the PBRN was one way to help facilitate effective communication and engagement with the relevant practitioner base. Indeed, a committee design such as that established for the ACORN PBRN has been proven to encourage PBRN membership in previous projects.<sup>8</sup>

The ACORN PBRN adopted a well-considered and well-resourced project branding. Indeed, previous health research literature has focused on ways in which branding and messaging can directly influence individuals around public health issues and risky behaviors<sup>23,24</sup> and be used

to engage hard-to-reach and underserved populations.<sup>25</sup> However, little research to date has explored the specific use or role of branding in the recruitment of health professionals for research projects nor specifically with regard to the task of establishing a PBRN. There is much scope for further investigation and reflection on the influence and role of project branding for designing and successfully conducting PBRNs in different areas of health and health care, and the ACORN PBRN may perhaps owe its recruitment success, in part at least, to the effective, well-designed, and well-resourced branding employed in the design of the wider project. Furthermore, the high response rate achieved in the first week of the recruitment period suggests that the sustained promotional work over the 12-month period before opening recruitment had a significant positive impact on the ACORN PBRN recruitment outcome. It is also highly likely that the endorsement of both the CAA and COCA and the financial support from CAA helped attract participation in the ACORN PBRN from among registered chiropractors who were also current members of the 2 associations.

Although a number of the group e-mails administered to promote and later recruit for the project do appear to have positively influenced the response rate at different times over the recruitment period, the testimonial e-mail drawing on the support of a number of well-respected senior practitioners in the field appears to have played an important role in the

successful recruitment of the ACORN PBRN, from our preliminary analysis of the project recruitment data. Indeed, identifying and harnessing local “champions” in the field who can promote participation within and beyond their regional networks has been reported to be a powerful recruitment tool when targeting health practitioners in research,<sup>15,26</sup> and it would appear that this particular communication tool may well deserve close consideration by those looking to establish a PBRN in the future.

The ACORN project included the use of group e-mails with embedded links to the online questionnaire to the targeted population. This design has been identified as aiding good participation rates in previous health research<sup>18</sup> and may have helped to contribute to the relatively high response rate achieved by the ACORN PBRN. The group e-mails forwarded over the recruitment period also followed best practice from previous experience, which determined that the distribution at the beginning of a working week produces a higher volume of responses than an e-mail distributed on a later day of the week.<sup>17</sup> All group e-mails and hard-copy mail-out materials were timed to hopefully be received by participants at the start of the week, and this also may have contributed, in part, to our relatively high response rate. The decision to employ both online and hard copy mail-out distribution, which previously has been identified as successful in improving response rates in conventional medical PBRN work,<sup>21</sup> ensured that both those chiropractors who were familiar and more comfortable with online content and engagement and those who might have, in contrast, preferred to complete the invitation pack via hard copy material were equally accommodated. Indeed, the volume of responses for each method were substantial and suggest such a multimethod recruitment invitation may have helped boost the overall response rate for the ACORN PBRN national practitioner database.

The additional opportunistic recruitment method whereby organizers of a number of regional conferences and events targeting chiropractor audiences also requested the opportunity to distribute copies of the ACORN PBRN invitation pack to their delegates may have helped to reach some nonmember chiropractors as well as provide another avenue to capture additional CAA and COCA members who to that point had not yet elected to participate.

Although completion of the questionnaire was not essential to participating in the ACORN PBRN, the design of the questionnaire—tailoring content to be practitioner relevant, concise, and easy to complete—was another possible factor in helping recruit substantial numbers of chiropractors to the accompanying ACORN practitioner database. The initial time investment (9-12 minutes) relative to the opportunity and long-term benefits (contributing to a national sustainable resource that will help grow the evidence base and research capacity of the profession) was perhaps a persuasive and significant feature of the PBRN. Previous research has also determined that including a clear outline of the predicted or

average completion time for potential participants can improve a questionnaire response rate,<sup>18</sup> and our inclusion of such information based on extensive pilot testing may have been an attractive feature for many chiropractors who, like many other health professionals, often face busy clinical demands and who may in some cases be “research distant.”<sup>14</sup> Furthermore, extensive pilot testing such as that undertaken as part of our PBRN, whereby questionnaire design was sensitized to the target audience, has been identified as helping boost the response rate of research questionnaires<sup>27</sup> and may well have contributed to addressing both of the objectives of the ACORN PBRN, as outlined previously.

The ACORN PBRN practitioner sample constitutes the largest proportional coverage of participants from any voluntary national PBRN across any single health care profession.<sup>28,29</sup> Having now achieved a high participation rate for the ACORN PBRN database, it is important that the chiropractic and other relevant research communities are encouraged and supported in drawing on such a national PBRN resource. Indeed, a core feature of the ACORN project is to facilitate and promote sub-studies initiated and led by researchers both external to and within the ACORN project team. External research teams are able to recruit sub-groups of practitioners (and/or their patients) that can be tailored the practitioner’s questionnaire profile from the ACORN PBRN database and the specific focus of the sub-study itself. The ACORN PBRN facilitates and encourages sub-studies that can use both quantitative and qualitative methods and observational and experimental approaches to research.

An expression of interest (EOI) process has been established to help manage ACORN PBRN sub-study proposals, and an official ACORN EOI application form has now been posted on the ACORN website. Expression of interest submissions will be subject to scientific peer review by the ACORN PBRN Steering Committee to ensure quality, rigor, fit, and other important criteria. Interested parties who may wish to submit sub-study EOIs will also require necessary ethics approval from the relevant institutional committee(s) before commencing research. ACORN PBRN senior academics are also available for consultation with interested parties regarding sub-study proposals and development. Although the establishment of the ACORN PBRN has been highly successful, as the initial membership participation rate identifies, the ongoing feasibility and impact of the PBRN, as with all networks of this type, will rely on not just maintaining practitioner engagement but also extensive researcher involvement and collaboration.<sup>30</sup>

### Limitations

The data collected for the ACORN PBRN database are self-reported by respondents, and this raises the possibility of recall bias. Furthermore, although we were able to compare the ACORN PBRN sample with the total national population of chiropractors in Australia with regard to a

number of key indicators, we were unable to make comparisons relating to other features because of the limitations of the AHPRA database. Overall, the ACORN PBRN is a national resource open for researchers and practitioners to codesign and conduct projects of practice significance and impact. The ACORN PBRN, incorporating a flexible and inclusive sub-study PBRN model and having attracted a large, nationally representative sample, constitutes a significant opportunity for the chiropractic profession and wider research community to coordinate their efforts toward growing a translational, sustainable research culture and evidence base around chiropractic care.

## CONCLUSIONS

A number of key promotional and recruitment features of the ACORN project may have helped establish the relatively high response rate for the PBRN, which constitutes an important sustainable resource for future national and international efforts to grow the chiropractic evidence base and research capacity. Further rigorous inquiry is needed to help evaluate the direct contribution of specific promotional and recruitment strategies in attaining high response rates from practitioners who may be invited to participate in future PBRNs.

## FUNDING SOURCES AND POTENTIAL CONFLICTS OF INTEREST

This research was funded by the CAA (<http://chiropractors.asn.au/>). The research reported in this paper was independently designed and conducted by the ACORN project team. No conflicts of interest were reported for this study.

## CONTRIBUTORSHIP INFORMATION

Concept development (provided idea for the research): D.S., J.A.

Design (planned the methods to generate the results): J.A., A.S., C.M., L.A.W., D.S.

Supervision (provided oversight, responsible for organization and implementation, writing of the manuscript): J.A.

Data collection/processing (responsible for experiments, patient management, organization, or reporting data): D.S., J.A., A.S.

Analysis/interpretation (responsible for statistical analysis, evaluation, and presentation of the results): J.A., A.S., C.M., L.A.W., D.S.

Literature search (performed the literature search): J.A., A.S., C.M., L.A.W., D.S.

Writing (responsible for writing a substantive part of the manuscript): J.A., A.S., C.M., L.A.W., D.S.

Critical review (revised manuscript for intellectual content, this does not relate to spelling and grammar checking): J.A., A.S., C.M., L.A.W., D.S.

## Practical Applications

- The ACORN PBRN has established the largest proportional coverage of participants from any voluntary national PBRN across any single health care profession worldwide.
- The ACORN PBRN database has recruited 36% of the national population of registered chiropractors.
- The ACORN PBRN sample is generally representative of the national registered chiropractic population on a number of key indicators including age, gender, and location.

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