Has the investment in general practice research been worthwhile?

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It may be time to invest more in primary care research, including research on clinical conditions

Here is a simple exercise: in the PubMed website (http://www.ncbi.nlm.nih.gov/pubmed), type "The New England Journal of Medicine [Jour] AND Australia [All Fields]", and you will see that the journal has published about 90 Australian articles since 2000. Scanning through them, you will find that just one includes an Australian general practitioner as an author (Professor John Marley, in 10th author position), for an article describing the large blood pressure trial ANBP2.1 Repeating this exercise for JAMA (the journal of the American Medical Association) yields one Australian GP author in one of 79 Australian papers (Professor Chris Silagy as first author), in an analysis of protocols of published systematic reviews and reports.2

But what should we expect in the way of research from just one discipline — general practice — in one country? Should we conclude that general practice is not a glittering performer among the medical and health disciplines in Australia, or that it is holding its own?

On one hand, it could be argued that general practice is not likely to be the area for such revolutionary discoveries as will command attention from the two most-cited medical journals. We could, instead, think of general practice as the final common pathway for best practice, honed in specialty clinical practice and research.

On the other hand, general practice could be described as not only an obvious but perhaps even an indispensable place for research in the areas of health services (ways of delivering care better) and clinical research into diseases encountered in primary care. It may even be a place for basic science research.

General practice is where about three-quarters of all medical consultations in Australia take place. The gaps between practice and the best evidence are as wide there as anywhere, and our need for information is urgent.3 On the basis of the numbers of clinicians in the discipline who need information, primary care research output should be the highest compared with the other (smaller) disciplines. But this was not the case a decade ago and is still not the case today, although the situation has improved. A 2001 study, using clinician numbers in the discipline as a denominator, showed that research in the area of internal medicine and surgery in Australia was 60–100 times more productive than that of general practice.4 In addition, general practice research is usually published in journals that are considerably less cited than specialty journals (although a citation index is an imperfect way of measuring research quality).5

The stimulus for a surge in Australian primary care research came from an unexpected quarter. In 1989, the proposal to form a register of GPs, championed by the Royal Australian College of General Practitioners (RACGP), was met with opposition from some non-RACGP-aligned GPs and the Australian Medical Association. The Australian Government referred this political hot potato to the Senate Select Committee on Health Legislation and Health Insurance, which took submissions around the country.6 The Committee noted that little information was available about Australian general practice, and made two recommendations. One recommendation approved the proposed GP register (registration then requiring vocational GP training), the other was for a program of evaluative research to be established, the General Practice Evaluation Program (GPEP).7 This was the predecessor of the current Primary Health Care Research Evaluation and Development (PHCREDP) program and, between them, these programs have since been the major sources of funding for Australian general practice research.8,9

Early general practice research was over-reliant on surveys and descriptive studies.7 Intervention studies started soon afterwards, although they were bemoaned as still too few and insufficiently rigorous.10 The subject matter for research has been heavily biased towards health services research at the expense of clinical illnesses, as might be expected from the historical origins of the funding.11 The investment has certainly paid off, lifting the average from one to three publications per 1000 Australian GPs per year over the past decade, with physicians now being “only” 50 times more productive than GPs.12

Primary care research has been criticised for being too “soft” (using qualitative rather than quantitative methods), and it may be true that too many nascent researchers think that qualitative research, or even survey research, will be easier than quantitative research; neither is. However, this is to confuse the mode of research with its purpose, that is, to answer the type of question that is being asked. One must use the right tools for the job. For example, questions about interventions need randomised trials; questions about diagnosis need consecutively enrolled cohort studies; and questions about aetiology need case–control studies. But sometimes a question, particularly in relation to implementation of multistranded interventions, can only be answered by using several methods — “mixed methods” research — to allow for some of the complexities of primary care.13

More important is the question of what research. It may be time to invest more in primary care research on clinical conditions (Box). There is more uncertainty about clinical conditions managed in primary care than about many conditions managed by specialists, and there is much research to conduct. A useful leaf that we, as GP researchers, should take from the specialists’ book is

<table>
<thead>
<tr>
<th>Australian primary care research funding 2000–2010: clinical research items compared with total items</th>
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<tbody>
<tr>
<td><strong>Funding body</strong></td>
<td><strong>Total items funded</strong></td>
</tr>
<tr>
<td>Primary Health Care Research Evaluation and Development*</td>
<td>46</td>
</tr>
<tr>
<td>National Health and Medical Research Council</td>
<td>166</td>
</tr>
<tr>
<td>Pharmacy Guild</td>
<td>82</td>
</tr>
<tr>
<td>Total</td>
<td>294</td>
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* Since 2003.
to work more collaboratively with basic science researchers. A good example of a successful collaboration of this sort is a study about the prevalence of whooping cough in children, which has changed the way we think about persistent cough after apparently trivial acute respiratory infections — might it be due to pertussis? In this study, bench-top scientists worked with GP researchers to generate a rapid and reliable diagnostic test for infection with *Bordetella pertussis*.\(^{15}\)

Now is the time for more investment in primary care research — of any kind.

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2. Silagy CA, Middleton P, Hopewell S. Publishing protocols of systematic reviews: comparing what was done to what was planned. *JAMA* 2002; 287: 2831-2834.