

# Measuring general practice activity in Australia: A brief history

Helena Britt, Graeme C Miller

**H**ealth services research on general practice that aimed to improve the function of practice and quality of care dates from the seminal ethnographic study of English general practice by Australian general practitioner (GP) Joseph Collings in 1950.<sup>1</sup> This remarkable 30-page report published in *The Lancet* shook British general practice to its foundations and triggered the formation of the Royal College of General Practitioners (RCGP), the world's first general practice college, and subsequently The Royal Australian College of General Practitioners (RACGP).

In Australia, Clifford Jungfer, an Adelaide GP, and John Last, a University of Sydney Public Health epidemiologist, undertook a survey of general practice in 1959 under the auspice of the newly established Australian College of General Practitioners (ACGP).<sup>2</sup> This report raised concerns about the functioning of Australian general practice.

In 1962, a National Morbidity Survey was initiated by the Research Committee of the ACGP and conducted in conjunction with the National Health and Medical Research Council's (NHMRC's) Medical Statistics Committee.<sup>3</sup> This survey involved 85 GPs who collected data for 12 months on 174,000 patients. The methods developed for this survey also established the groundwork for subsequent GP morbidity surveys in Australia.

In 1969, the research committee of the now RACGP initiated the Australian General Practice Morbidity and Prescribing Survey in conjunction with a market research organisation (Intercontinental Medical

Statistics). This survey involved volunteer GPs who recorded patient encounters on structured triplicate prescription forms.<sup>4</sup> In the last year of this survey, the coding of patient problems was a trial version of the World Organization of Family Doctors' (WONCA's) International Classification of Health Problems in Primary Care (ICHPPC), the forerunner of the International Classification of Primary Care (ICPC).<sup>5</sup> This survey involved 350 GPs recording patient contacts for one week, two to four weeks per year, over a period of six years.

In 1977, Helena Britt joined Charles Bridges-Webb, then Professor of Community Medicine at the University of Sydney and longstanding member of the RACGP's Research Committee. At that time, he was collecting free-text morbidity data on triplicate script pads in the Sydney University General Practice. From 1977 to 1989, Bridges-Webb and Britt developed a more structured approach to recording forms and, with small NHMRC grants, validated each step of the data collection process. From 1983, in collaboration with the RACGP's Quality Assurance Committee, they tested and operated the first self-audit in general practice for quality assurance purposes.

After multiple attempts, in 1989, Bridges-Webb was successful in obtaining a grant from the NHMRC to pilot another survey (in New South Wales) of general practice based on the 1969–74 survey methods. Also in 1989, the Senate Select Committee on Health Legislation and Health Insurance, in approving the introduction of vocational

registration of GPs, recommended the establishment of a process for the evaluation of general practice following its introduction. The federal government accepted the recommendation and established the General Practice Evaluation Program (GPEP). The first project funded under GPEP in 1990 was an extension of Bridges-Webb's NHMRC project into a national survey and conduct of a parallel survey comparing metropolitan and country general practice in the eastern states.

The Family Medicine Research Unit (FMRU), under the direction of Britt, was established within the University of Sydney's Department of General Practice to conduct the two surveys. The Australian Morbidity and Treatment Survey (AMTS) was conducted between October 1990 and October 1991.<sup>6</sup> Almost 500 GPs recorded details of all patient encounters for two one-week periods, which were separated by an interval of six months. The total collection was spread evenly throughout the year. The Comparison of Country and Metropolitan General Practice survey used the same approach with 231 GPs who collected data over the same period.<sup>7</sup> These surveys were the first to use stratified random samples of GPs. Apart from the reports published as supplements in the *Medical Journal of Australia*, secondary analysis of the data explored many aspects of general practice in Australia, which were subsequently largely published in *Australian Family Physician (AFP)*.

The AMTS gave the researchers a real database on which to model the most cost-

effective sample sizes for nationally valid data. GPs were offered the opportunity to undertake the Morbidity and Therapeutic Index audit for their quality assurance requirements. More than 4000 GPs had undertaken the audit by the late 1990s.

In the early 1990s discussions began about the possible use of GP electronic health records (EHRs) for the collection of patient data for research. In 1993, the FMRU successfully applied for funding under the Demonstration Practice Grants scheme for a 'Pilot test of computerised general practice data collection for epidemiological purposes' (Aus-Read Trial).<sup>8</sup> This project evaluated the use of Read codes<sup>9</sup> for clinical coding in GP EHRs; developed specifications for a GP EHR<sup>10</sup> for clinical and data extraction purposes; commissioned EHR software; and pilot tested the system in two practices (reduced from the 24 practices originally proposed).

The final report of the project recommended the adoption of the Read codes as an Australian standard for clinical coding, provided they could be adapted to Australian medical terminology. However, agreement could not be reached with the UK owners regarding adaption of the Read codes and the government decided not to proceed with the adoption. The project was terminated at the end of the one-year contract. The project demonstrated the total inability of the software industry at that time to deliver programs to meet standard specification, and the poor quality and support for their software. The government was unwilling to provide the additional resources necessary to correct software deficiencies and allow additional time for the trial to reach its objectives.

Between 1991 and 1997, the FMRU expanded the data elements included in the audit; designed more sophisticated classifications for pharmaceuticals at brand level; continued to develop and distribute the International Classification of Primary Care, Version 2 (ICPC-2) Plus coding system for morbidity and other management actions; and adopted new and more sophisticated statistical techniques.

In 1997, the FMRU initiated discussions with the Australian Institute of Health and Welfare (AIHW) regarding future data collection from general practice for analysis of general practice activity, and patient disease prevalence and management. As a result, a collaborating unit of the AIHW and the University of Sydney, the General Practice Statistics and Classification Unit (GPSCU), was established at the university to conduct a general practice data collection and analysis program called the Bettering the Evaluation and Care of Health (BEACH) program. At this time, the FMRU became a University of Sydney centre, the Family Medicine Research Centre (FMRC). The program built on the lessons learned in the AMTS and Comparison of Country and Metropolitan General Practice survey, and added a new concept of patient-based sub-studies (called Supplementary Analysis of Nominated Data [SAND] studies) conducted in conjunction with the collection of GP-patient encounter data. BEACH was designed as a continuous, ongoing program rather than the data 'snapshot' of previous Australian studies and virtually all overseas general practice data collection programs. BEACH data collection commenced on 1 April 1998 and continued for 18 years until 30 March 2016. A summary of BEACH methods has been published in this journal recently.<sup>11</sup>

BEACH and the associated SAND studies have provided a rich source of data for analysis by the BEACH research team at the FMRC, frequently in collaboration with other stakeholders and academics across Australia. The FMRC research outputs from BEACH included:

- 41 BEACH books and seven other books
- contributions to 10 other books
- about 178 refereed articles in recognised journals (three in press, five under review and more to be submitted)
- 140 unrefereed articles in recognised journals
- 71 papers in other journals/ publications (eg *Byes from BEACH*, FMRC website, *The Conversation*)
- 16 theses and treatises (including five Doctor of Philosophy [PhD]).

- 223 SAND sub-studies on a wide range of topics
- hundreds of conference presentations
- more than 1000 bespoke reports for stakeholders, researchers, governments and industry.

Copies or links to most of this output are available on the continuing FMRC website.<sup>12</sup> These publications have more than 6000 citations in the scientific literature and have been extensively cited in grey literature such as government, AIHW and Productivity Commission reports, and GP and patient educational material.

Many people believe the future of data collection from general practice is in the download of encounter-based and patient-based data collected in the course of clinical care. However, there is no continuous, comprehensive, nationally representative data collection from GP EHRs in any country in the world. The closest to the vision is the patient registration data program in The Netherlands, which collects data from a carefully trained random group of 150 GPs using standards-compliant EHR systems.<sup>13</sup> As we recently described in *Issues Brief* for the Deeble Institute,<sup>14</sup> Australian GP EHRs are not standards-compliant and much needs to be done to reach a point where active, let alone passive, collection of GP data from EHRs can be translated into valid, representative national data about the care given to patients by GPs. Until standards are declared and Australian GP EHRs are standards-compliant, this situation will not change.

BEACH and the FMRC have now closed because there is a lack of direct support from the federal government and dwindling support from a health industry plagued by a lack of research resources. The FMRC has not been the only casualty of the withdrawal of government support – the Australian Primary Health Care Research Institute and its associated research centres have closed, and the Primary Health Care Research and Information Service is on borrowed time. This brings to an end 25 years of high-quality general practice research initiated by the

recommendations of the Senate Select Committee on vocational registration in 1989 and long supported by the federal government.

Vale BEACH. Thanks to all the GPs for their support. So long and thanks for all the data.

### Authors

Helena Britt BA, PhD, Professor of Primary Care Research, Sydney School of Public Health, University of Sydney, Sydney, NSW. [helena.britt@sydney.edu.au](mailto:helena.britt@sydney.edu.au)

Graeme C Miller MBBS, PhD, FRCAGP, Hon Associate Professor, School of Public Health, University of Sydney, Sydney, NSW

Competing interests: None

Provenance and peer review: Commissioned, externally peer reviewed.

### References

- Collings JS. General practice in England today – A reconnaissance. *Lancet* 1950;255(6604):555–85.
- Jungfer CC, Last JM. Clinical performance in Australian general practice. *Med Care* 1964;2(2):71–83.
- National Health and Medical Research Council. Report on a national morbidity survey part 1. Canberra: NHMRC, 1966.
- Bridges-Webb C. The Australian general practice morbidity and prescribing survey, 1969 to 1974. *Med J Aust* 1976;2(1 Suppl):1–28.
- Classification Committee of the World Organization of Family Doctors. ICPC-2: International Classification of Primary Care. 2nd edn. Oxford: Oxford University Press, 1998.
- Bridges-Webb C, Britt H, Miles DA, et al. Morbidity and treatment in general practice in Australia 1990–1991. *Med J Aust* 1992;157(19 Oct Spec Sup):S1–56.
- Britt H, Miles DA, Bridges-Webb C, et al. A comparison of country and metropolitan general practice. *Aust Fam Physician* 1994;23(6): 1116–25.
- Britt H, Miller G, Jurd E, Norton K. The Aus-Read Trial: The use of computerised records in general practice in Australia. Sydney: The University of Sydney, 1994.
- Saint-Yves IF. The Read Clinical Classification. *Health Bull (Edinb)* 1992;50(6):422–27.
- Britt H, Miller G, Jurd E, Norton K. The Aus-Read Trial: Appendix 6a – Specifications for the general practice computer system (including CAMS functionality compliance checklist). Sydney: The University of Sydney, 1994.
- Britt H, Miller G. The BEACH program: An update. *Aust Fam Physician* 2015;44(6):411–14.
- Family Medicine Research Centre. BEACH Publications – Overview. Sydney: The University of Sydney, 2015. Available at <http://sydney.edu.au/medicine/fmrc/publications/index.php> [Accessed 15 October 2015].
- Netherlands Institute for Health Services Research. Netherlands Information Network of General Practice (LINH). Utrecht: NIVEL, 2016. Available at [www.nivel.nl/en/netherlands-information-network-general-practice-linh](http://www.nivel.nl/en/netherlands-information-network-general-practice-linh) [Accessed 26 July 2016].
- Gordon J, Miller G, Britt H. Reality check – Reliable national data from general practice EHRs! Deeble Institute Issues Brief No 18. Canberra: Deeble Institute, 2016. Available at <https://ahha.asn.au/publication/issue-briefs> [Accessed 14 July 2016].