

# 1 Introduction

The BEACH (Bettering the Evaluation and Care of Health) program is a continuous national study of general practice activity in Australia that began in April 1998. This is the second report from the BEACH program on general practice activity across metropolitan, rural and remote Australia.<sup>2</sup> There has been ongoing debate in Australia about the extent to which general practice in rural and remote locations differs from general practice in metropolitan areas and whether rural general practice constitutes a separate discipline.<sup>3-5</sup> The Australian Government has used the Rural, Remote and Metropolitan Areas (RRMA) classification<sup>6</sup> to define groups of GPs who should receive specific incentive payments due to their location. As a result there has been some discussion about where 'cut-offs' should be in RRMA, for such additional payments.<sup>7</sup> At the time this report was being prepared, the Australian Government was conducting a review of rural classifications in response to concerns regarding the appropriateness of the RRMA classification in defining rurality of general practice.<sup>8</sup> By combining 6 years of BEACH data this report is able to describe general practice activity separately for each of the seven categories of the RRMA classification.<sup>6</sup>

This report also includes for the first time a description of general practice activity across the five categories of the Australian Standard Geographical Classification (ASGC) Remoteness Structure.<sup>9</sup> One of the main purposes of the report is to compare the sensitivity of each classification system (RRMA and ASGC Remoteness) to detect differences in general practice activity across the regional/geographical spectrum of Australia.

The study investigates similarities and differences between each geographical category and the national average in terms of: the characteristics of the practising general practitioners (GPs), the patients they encounter, the problems they manage and the treatments they provide. It uses details from 6,019 GPs about more than 600,000 GP-patient encounters conducted and reported between April 1998 and March 2004. This sample represents about 30% of the practising recognised GP population and a one per 1,000 sample of all GP-patient encounters occurring during this 6-year period (Health Insurance Commission, unpublished data).

GPs perform a gatekeeper role for entry into the secondary and tertiary sectors of the Australian health care system. Most of the 19.7 million Australians (85%) attended a GP at least once during the year 2002 (personal communication, General Practice Programs Branch, Australian Government Department of Health and Ageing). An individual is free to visit multiple GPs of his/her choice and it is a fee-for-service system. However, by far the majority of visits to GPs are funded through the Commonwealth Medicare Benefits Schedule (MBS) on a fee-for-service basis, Medicare paying for 85% of the government recommended consultation fee during the period of this study.<sup>10</sup>

In 2001-02 there were about 19,500 recognised GPs claiming through Medicare, and around 4,700 other (primary care) medical practitioners (OMPs), providing a total of 16,700 full-time workload GP equivalents.<sup>11</sup> GPs provided by far the majority of the (approximately) 100 million non-specialist services to the population that were paid by Medicare, at an average rate of 5.2 services per person in 2001-02.<sup>11</sup>

## 1.1 Aims

The BEACH program aims:

- to provide a reliable and valid data collection process for general practice which is responsive to the ever-changing needs of information users; and
- to establish an ongoing database of GP-patient encounter information.

This report specifically aims:

- to provide an overview of the activities in general practice for each RRMA and ASGC Remoteness category and identify any geographical differences that affect general practice activity compared with Australia as a whole; and
- to examine the relative effectiveness of the RRMA classification and the ASGC Remoteness Structure in describing any differences in general practice activity according to geographical location.

## 1.2 Geographical classification

### RRMA

The Rural, Remote and Metropolitan Areas (RRMA) classification was developed in 1994 by the Department of Primary Industries and Energy and the then Department of Human Services and Health.<sup>6</sup> It is currently the remoteness classification system most widely used in government policy and funding arrangements.<sup>1</sup> The RRMA has seven categories which collapse into three zones. The metropolitan zone includes the categories Capital Cities and Other Metropolitan Centres, the rural zone includes Large Rural Centres, Small Rural Centres and Other Rural Areas, while the remote zone includes Remote Centres and Other Remote Areas. RRMA is allocated at the level of Statistical Local Area (SLA). RRMA values are based on the population density of the SLA plus the straight line distance between the centre of the SLA and urban centres of various sizes. RRMA scores are only calculated for locations outside large urban centres of population 100,000 or more, and large urban centres are divided into Capital Cities or Other Metropolitan Centres. Recently the use of RRMA as the standard measure of remoteness has been questioned on the basis of perceived methodological weaknesses.<sup>1,6</sup>

One major criticism of RRMA is the inclusion of population density in the calculation; two localities may be the same distance from goods and services, but the locality with the greater population density may fall into a less 'remote' RRMA category.<sup>1,6</sup> A similar problem exists for classifying metropolitan areas, for example some Other Metropolitan Centres such as Geelong are larger and less remote than some Capital Cities such as Hobart. RRMA classification has also been criticised for its use of straight line distance to measure remoteness from urban centres, as this masks the real distance to goods and services in terms of road travel time.<sup>1,6</sup> As the current standard classification of geography used in health care statistics, RRMA has been used in this report to describe general practice activity across regional categories.

## **ARIA and ASGC Remoteness Structure**

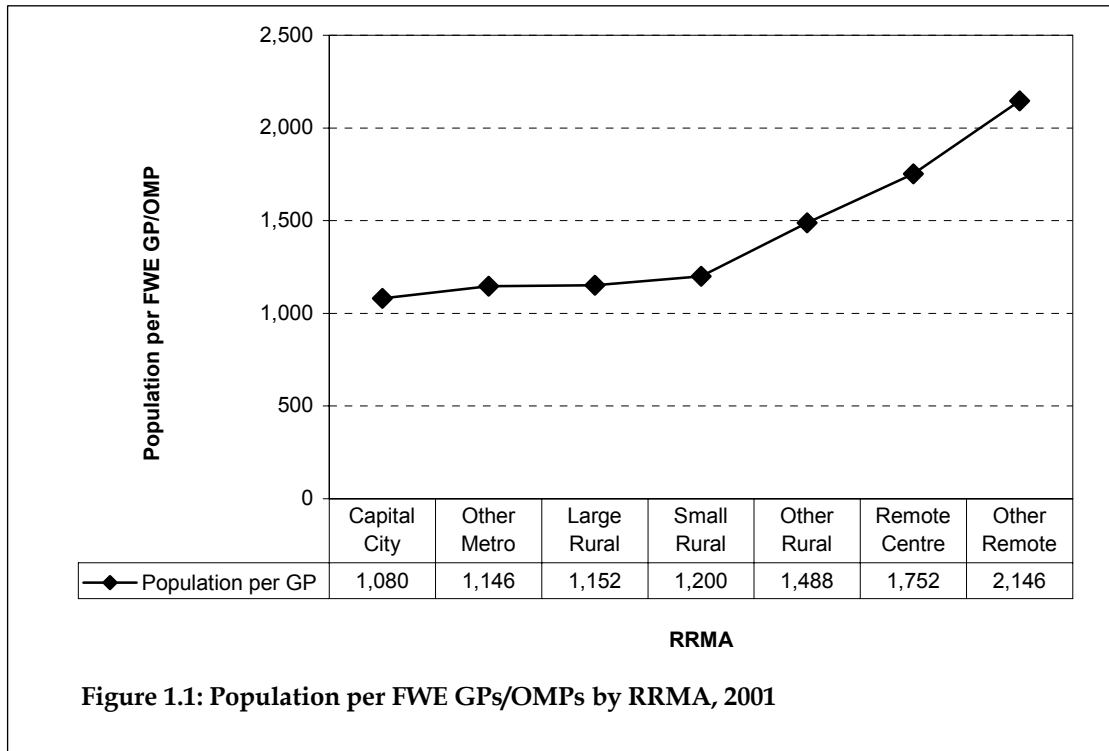
The Accessibility and Remoteness Index of Australia (ARIA) was developed by the Commonwealth Department of Health and Aged Care in 1997 in collaboration with the National Key Centre for the Social Application of GIS (GISCA), as a measure of geographical remoteness from goods and services.<sup>1,12</sup> Remoteness in ARIA is measured in terms of road distance to four categories of urban service centre based on population size. These were later increased to five categories of service centre in the revised version ARIA+. ARIA is a continuous linear measure of remoteness; however, it can be broken into ordinal categories based on the range of remoteness scores.<sup>13,14</sup>

The Australian Bureau of Statistics applied the ARIA+ scores to the Australian Standard Geographical Classification (ASGC) units to produce the ASGC Remoteness Structure with five ordinal remoteness categories: Major Cities, Inner Regional Australia, Outer Regional Australia, Remote Australia and Very Remote Australia.<sup>9</sup> ARIA has become a serious contender for a new geographical classification system in Australia.<sup>1,12</sup> Therefore the ASGC Remoteness Structure has been used in this report as an ordinal measure to compare general practice activity across areas with increasing geographical remoteness from goods and services.

### **1.3 MBS claims and full-time workload equivalents**

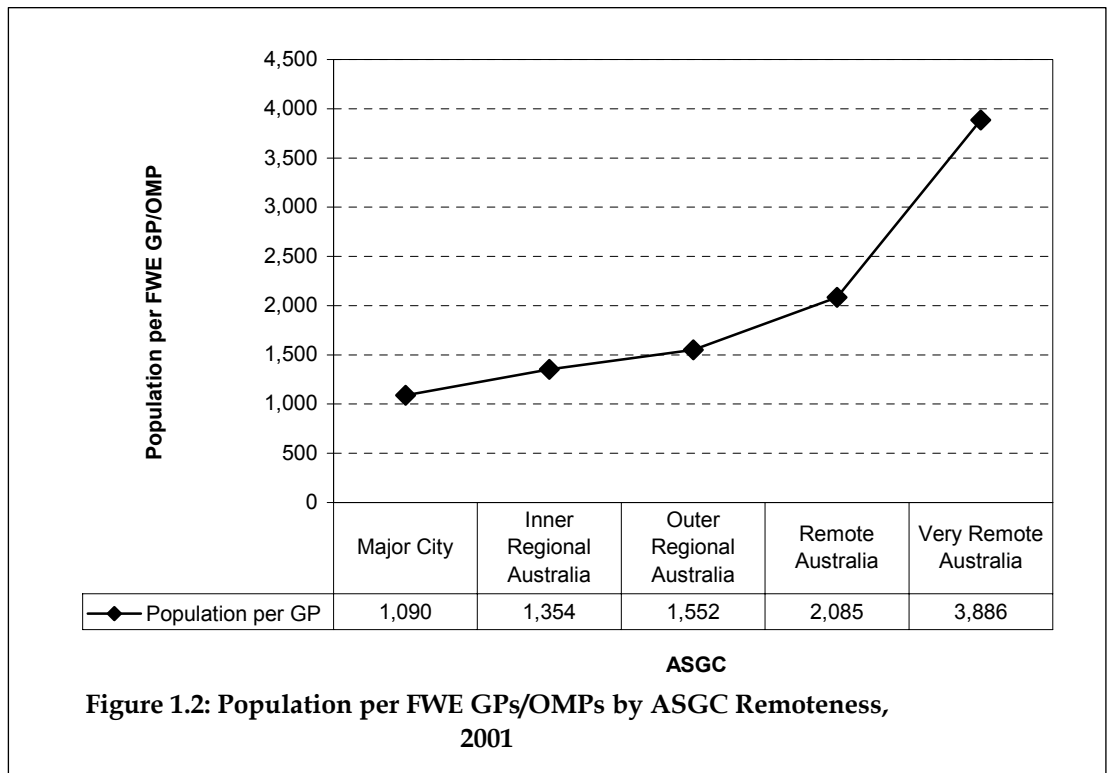
According to the RRMA classification, in 2001 there were 11,443 full-time workload equivalent (FWE) GPs/Other medical practitioners (OMPs) in Capital Cities. There were 1,320 in Other Metropolitan Centres, 1,004 in Large Rural Centres, 1,055 in Small Rural Centres, 1,718 in Other Rural Areas, 126 in Remote Centres and 158 in Other Remote Areas (HIC unpublished data). According to the ASGC Remoteness Structure, in 2001 there were 11,808 FWE GPs/OMPs in Major Cities, 2,974 in Inner Regional Australia, 1,298 in Outer Regional Australia, 156 in Remote Australia and 46 in Very Remote Australia (HIC unpublished data). Figures 1.1 and 1.2 show the ratio of population to FWE GPs/OMPs by RRMA and ASGC Remoteness. Both classification systems demonstrated that population per GPs/OMPs increased with increasing distance from Capital and Major Cities. This was particularly evident in the ASGC Remoteness Structure where the ratio of population to GPs/OMPs in Very Remote Australia was more than treble that of the Major Cities.

Figures 1.3 and 1.4 show the mean annual GP visits by geographical area, calculated as the ratio of general practice (A1 and A2 item) claims to population. These figures illustrate how annual visit rates per person decreased according to the relative decrease in FWE GPs.

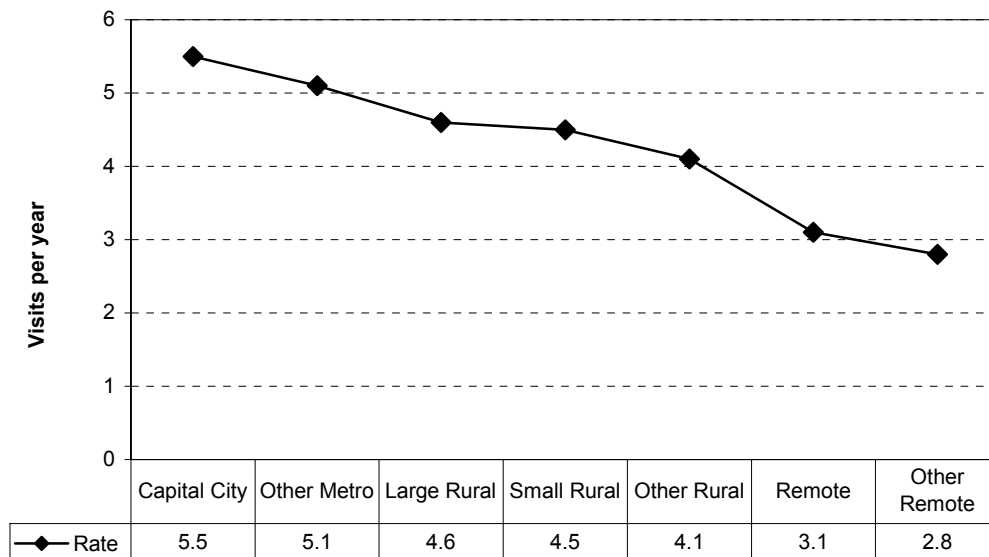


Note: Metro—Metropolitan.

Source: Health Insurance Commission unpublished data.



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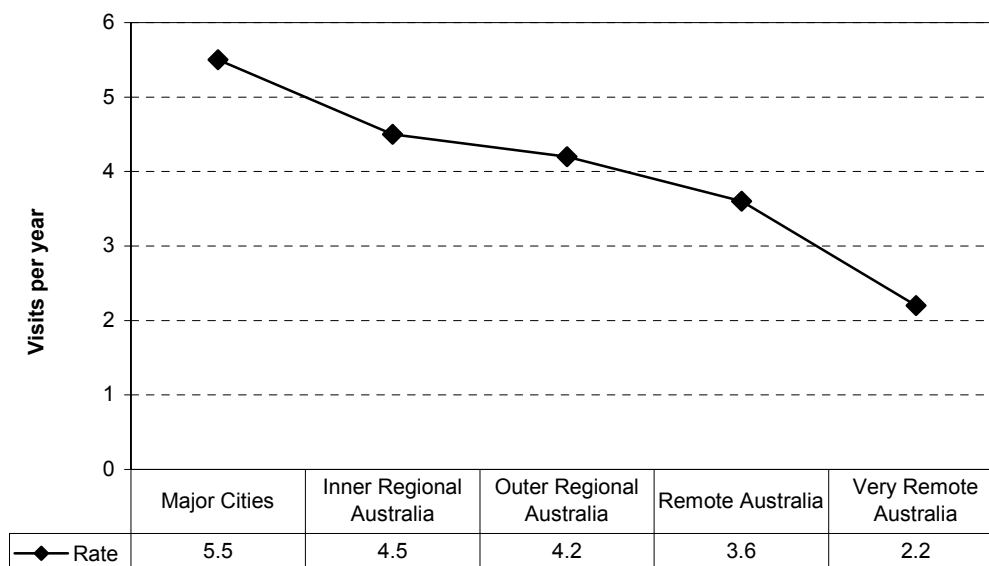


**RRMA**

**Figure 1.3: Mean annual number of GP visits per head of population by RRMA, 2001 (MBS A1 and A2 item claims)**

Note: Metro—Metropolitan.

Source: Health Insurance Commission Medicare Benefits Schedule (MBS) A1 and A2 item claims data.



**ASGC**

**Figure 1.4: Mean annual number of GP visits per head of population by ASGC Remoteness, 2001 (MBS A1 and A2 item claims)**

Source: Health Insurance Commission Medicare Benefits Schedule (MBS) A1 and A2 item claims data.