

# General practice in urban and rural New Zealand: Results of the 2007 RNZCGP membership survey

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## ABSTRACT

**INTRODUCTION:** The provision of primary health care is an integral part of both a country's health system, and of the overall social and economic development of its communities. An adequate general practice and primary health care workforce is a prerequisite to the provision of good primary health care. Countries with stronger primary health care services have better health and much lower health costs. This paper reports the results of the RNZCGP's 2007 annual membership survey and discusses workforce development in urban and rural New Zealand (NZ).

**METHOD:** In 2007, the RNZCGP sent a survey form to all its financial members as part of the annual subscriptions mail-out to gather data about College members' current working patterns and help construct a longitudinal view of work preferences and hours worked per week.

**RESULTS:** The response rate was 59% (1995 members/participants: 1098 males (55%) and 897 females). More female GPs (86%) worked in urban centres than male GPs (83%). NZ European GPs were over-represented (67%) in the South Island when compared to their representation within the total population. Numbers of international medical graduates (IMGs) had increased in urban centres since 2005. All regions experienced a decrease in self-employed GPs. Rural GPs spend more hours per week in general practice than urban GPs.

**CONCLUSION:** The GP workforce is an integral part of the NZ primary health care workforce, and is currently facing many challenges. Stakeholders need to ensure that NZ remains an attractive primary health care environment in order to retain NZ-trained GPs and attract IMGs.

**KEYWORDS:** Family physician, New Zealand, rural health services, manpower

## Introduction

More than 30 years ago, the Alma-Ata Declaration of 1978 stated, among many important things, that primary health care was an integral part of both a country's health system, and of the overall social and economic development of its communities.<sup>1</sup> Thirty years later, there are many unmet health needs that are largely due to the disproportionate focus on specialist hospital care, fragmentation of the health system and the proliferation of unregulated commercial care.<sup>2</sup> In New Zealand (NZ) there has been a greater emphasis on the provision of primary health

care in the last decade with the development and implementation of the Primary Health Care Strategy 2001.<sup>3</sup>

The benefits of having robust primary health care such as having a good relationship with a freely chosen primary care doctor, preferably over several years, are associated with better care, more appropriate care, better health and much lower health costs.<sup>4</sup> Countries that focus and orientate towards primary health care have more equitable resource distributions, health insurance or services that are provided by the government, little or no private

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health insurance, no or low co-payments for health services, better ratings by their populations, primary care that includes a wider range of services and is family oriented and better health at lower costs.<sup>5-7</sup> NZ endeavours to continually provide quality primary health care to its populations.<sup>8,9</sup>

An adequate general practice and primary health care workforce is a prerequisite to the provision of good primary health care. Areas with higher ratios of primary care physicians to population had much lower total health care costs than other areas, because of the preventative care and lower hospitalisation rates that accompany good primary care.<sup>4</sup> There are approximately 72–74 general practitioners (GPs) per 100 000 people in NZ.<sup>10</sup> Depending on the circumstances such as the number of part-time GPs, geographical locations, and the level of deprivation, NZ should be aiming for GP ratios of approximately 96 to 100 GPs for 100 000 people.<sup>11</sup> Achieving this standard of provision is problematic mainly due to an increasingly ageing GP population, greater variation in work arrangements, and an inadequate number of undergraduate and postgraduate medical training places to service demand.<sup>12</sup> Already, the shortage of GPs is forcing many GPs to close their books.<sup>13</sup>

### Urban and rural New Zealand

NZ is one of the most highly urbanised countries in the world, with 86% of its population living in urban areas.<sup>14</sup> However, population size alone does not necessarily reflect the characteristics that make a place urban or rural.<sup>15</sup>

Statistics New Zealand (2006) has developed four categories for defining rurality:

1. Rural area with high urban influence;
2. Rural area with moderate urban influence;
3. Rural area with low urban influence; and
4. Highly rural/remote area.

While this is an improvement on the previous criteria which were primarily based on population size, it may still prove challenging to reclassify particular areas based on the criterion of employment address rather than residential address.

A possible shortcoming of these new criteria is the disenfranchising of people who live and

### WHAT GAP THIS FILLS

**What we already know:** General practice in urban and rural New Zealand presents some unique workforce challenges. There is a shortage of GPs which is more pronounced in rural areas.

**What this study adds:** GPs are changing their work arrangements and reducing their hours to achieve a better work/life balance. These changes are likely to affect the provision of primary health care in many regions in New Zealand.

work in rural areas but are outnumbered by those who work in urban centres, but live in a rural community. The new criteria also may not take into account the type of employment a person is engaged in despite the fact that they may be working in an urban centre. Simply, having employment in an urban centre (but living in a rural area) does not remove the challenges faced by people of lower socio-economic status. Some communities in urban centres have access problems despite being close to many health and other services.<sup>16</sup> Problems of access to health care are already present in many rural areas.<sup>17,18</sup>

The Ministry of Health has a Rural Ranking Scale (RRS) for rural funding (for reasonable rosters and recruitment and retention). The RRS scores GPs from 0 to 100 based on factors such as distance from a major hospital, 24/7 on-call duties, on-call for major trauma and travelling time to access primary health care. Currently the recognised threshold for RRS funding is a score of 35 and above. In mid-2006 the Ministry of Health, despite receiving substantial submissions towards improving the RRS, did not make any changes or modifications to the RRS.<sup>19,20</sup> While the adequacy of this ranking system has been challenged, it still provides the foundation for rural general practice funding and allows comparison with other data.<sup>19-21</sup>

Rurality for the members of the Royal New Zealand College of General Practitioners (RNZCGP) is self-determined by the members. Self-identification allows College members to express their perception of rurality based on their practice profile, the range of illnesses/conditions they deal with, the challenges faced by the community

in accessing health care and other services, and other factors that currently are not part of the rural ranking scale.

The definition of 'rural GPs' used by the College includes all members who self-identified as 'rural' and also provided a RRS of 5 and above.

This paper reports the results of the RNZCGP's 2007 annual membership survey and, in particular, discusses workforce development in urban and rural NZ. It aims to collate data about College members' current working patterns and help construct a longitudinal view of work preferences and hours worked per week.

## Method

In 2007, the RNZCGP sent a survey form to all its financial members as part of the annual subscriptions mail-out.<sup>22</sup> This survey was similar to previous surveys conducted in 2003 and 2005 with some modification and inclusion of some new questions. Demographic data were extracted from information provided on College subscription forms and linked to demographic data on all the College members from the College database. To assist with non-identification of participants, ethnicities with <5 member participants were included in the 'other' category.<sup>22</sup>

The survey was to all 3384 College members, excluding life members and Primex special can-

didates. Completion was voluntary. The survey asked participants about their current work status and hours worked, their future work intentions, their satisfaction with the College's activities, advocacy and communications and remuneration.

This paper addresses these workforce-related data (gender, age, ethnicity, number of international medical graduates, work arrangements, and hours worked) distinguished by participants' practice location; urban or rural area and North or South Island of NZ. Where appropriate, data from previous surveys are used for comparison.

## Results

Response rate was 59%: 1995 members/participants with 1098 males (55%) and 897 females. The gender distribution from the College membership database is 59% for males and 41% for females.

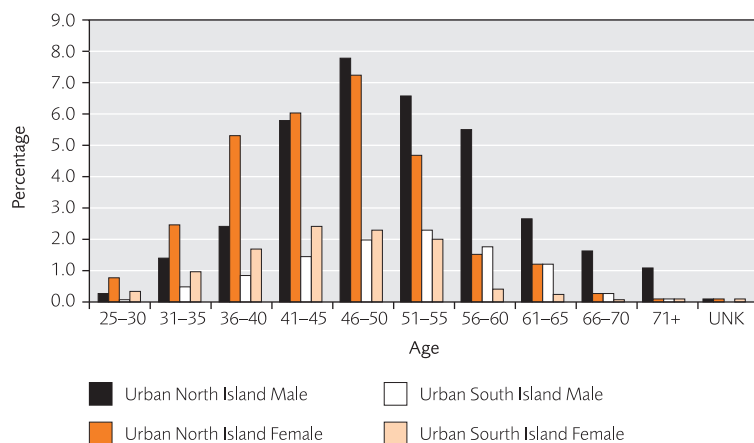
Overall, the majority of respondents were aged 46 years and over; the mean age was 49 years; 52% of GPs were aged between 46 and 60 years; 73% of female GPs were younger than 50 years; NZ Europeans were the majority (61%) in the GP workforce; Maori GPs (2.2%) and Pasifika GPs (2%) continue to be under-represented relative to their representation in the total population of NZ (14% and 7% respectively); 39% of GPs were self-employed in 2007, down from 56% in 2005; male and female GPs preferred different work arrangements; for example part-time employment was preferred by many female GPs.<sup>12</sup> In 2007, GPs worked an average of 42 hrs/wk compared to 48 hrs/wk in 2005.

## Gender and age

While a greater percentage (86%) of female GPs worked in urban centres compared to male GPs (83%), this was not statistically significant (Figure 1). In urban North Island, there were more female GPs than male GPs in the age cohorts of 25–45 years and there were more male GPs than female GPs aged 46 years and over.

In urban South Island, there were also more female GPs than male GPs in the age cohorts of

Figure 1. Gender and age in urban general practice in New Zealand



25–50 years and there were more male GPs than female GPs aged 51 years and over.

In rural North Island, there were more female GPs than male GPs in the age cohorts of 31–40 years and there were more male GPs than female GPs aged 41 years and over (Figure 2). In rural South Island, there were more male GPs than female GPs in all age cohorts.

The national GP workforce comprised 64.5% of GPs who worked in urban North Island, 8.4% who worked in rural North Island, 20.9% who worked in urban South Island, and 4.3% who worked in rural South Island (1.9% of survey respondents worked abroad).

### Ethnicity

NZ European GPs were over-represented in the South Island (approximately 67%) when compared to their representation within NZ's total population (59%) (Figure 3) but were under-represented when compared to their representation in the South Island (92%). European GPs were over-represented whereas Maori and Pasifika (included in 'Other') GPs were substantially under-represented in all regions of NZ.

### International medical graduates

Thirty-four percent of participants were international medical graduates (IMGs). The majority of IMGs (81%) had either come from, or received their initial medical qualification from, the UK, South Africa, Australia, or the Indian sub-continent (Figure 4). Most IMGs (80%) were based in urban centres, and mostly (62%) in the North Island. In comparison to 2005 survey data, IMGs in urban centres had increased while those in rural centres had decreased.

The data suggest that some GPs of European origin have come to identify themselves as NZ Europeans or that a substantial portion of NZ Europeans had their medical training overseas. Europeans and NZ Europeans constituted 49% of IMG GPs and were the largest group in all regions. The majority of IMGs are in the 41–55 age cohorts.<sup>23</sup> Rural North Island had the highest

Figure 2. Gender and age in rural general practice in New Zealand

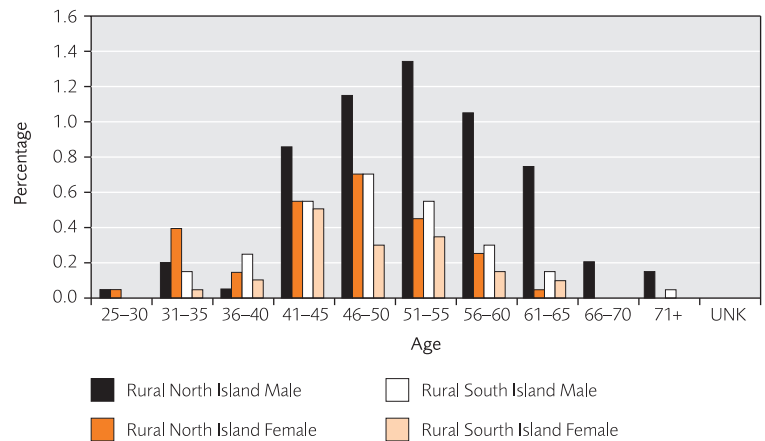


Figure 3. Ethnicity of GPs in urban and rural New Zealand

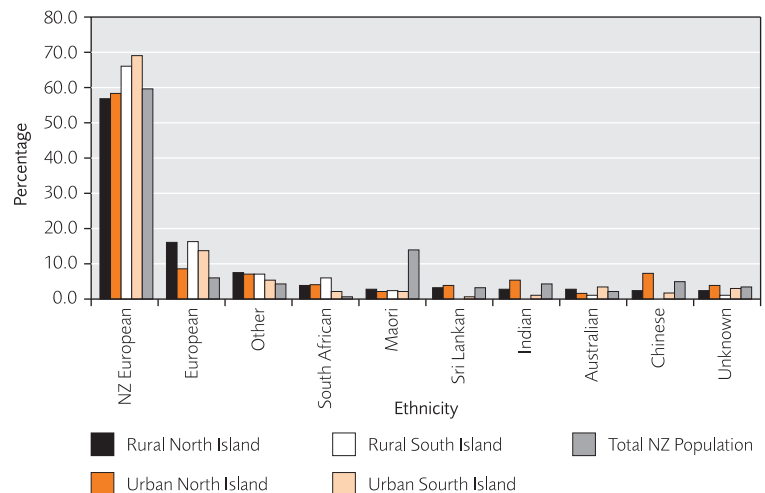
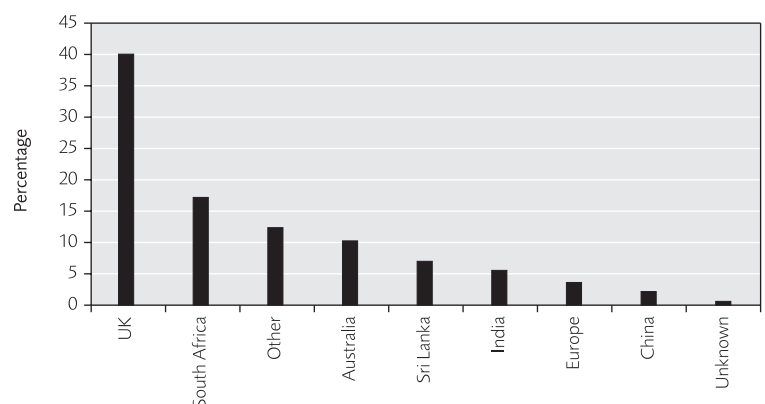


Figure 4. Origin of IMG GPs working in urban and rural New Zealand



percentage of IMGs (48%), while urban South Island had the lowest (30%).

### Work arrangements of GPs in urban and rural New Zealand

All regions have experienced a decrease in the number of self-employed GPs since 2005, with rural South Island reporting the biggest decrease (48%). South Island (rural and urban) were the only regions to experience an increase in locums and salaried GPs since 2005. GPs in sub-specialties, in non-general practice medical work and in non-medical work increased substantially across all the regions. Rural South Island had the highest percentage of GPs engaged in academia.

### Hours worked by GPs in urban and rural New Zealand

Similar to 2005, GPs in rural South Island spent the most hours per week working in general practice (56.5hrs/wk or 1.4 FTEs), followed by GPs in rural North Island (45 hrs/wk or 1.1 FTEs), GPs in urban North Island (37.8 hrs/wk or 0.9 FTE), and GPs in urban South Island (36.9 hrs/wk or 0.9 FTE). GPs in rural South Island spent more hours per week consulting with patients (27.5hrs), but urban GPs spent a greater percentage of their time consulting with patients (64%).

### Discussion

In the short to medium term, NZ needs to train more doctors. One of the new workforce strategies to attract and hopefully retain health professionals in hard-to-staff areas is the voluntary bonding of doctors, nurses and midwives from 2010. Seven DHBs, three provincial hospitals and the medical specialties of general practice, general surgery, internal medicine, psychiatry and pathology have been identified to directly benefit from this new workforce incentive.<sup>24</sup> Other strategies include increasing training places in medical schools by 200 from 2010, and increasing places for vocational training in some specialties including general practice. These increments will need to continue for the next five years or more.

New Zealand is heavily reliant on IMGs to deliver health services, especially in rural areas.<sup>10,26</sup>

Overall, the GP workforce is made up of a broad spread of ethnicities, primarily due to the high proportion of IMGs working in New Zealand. This trend is likely to continue into the foreseeable future. However, it is troubling to find that Maori and Pasifika GPs are grossly under-represented in the workforce.

Self-employment seems to be on the decline and this is reflected in all regions. It is still early to see if this trend will continue. GPs in rural areas spend the most hours per week in general practice, mostly due to their on-call duties which are often 24/7.<sup>23</sup> However there is pressure on respective DHBs and PHOs to help ease the on-call burden for rural GPs.<sup>24</sup> This may help attract and retain younger GPs in rural areas.

Approximately 14% of GPs work in rural settings servicing 14% of NZ's population. Despite the relative distribution, a lack of GPs in rural areas is a commonly cited fact.<sup>26,27</sup> One possible reason for this is the spread of rural communities over vast areas creating health access and equity issues for local populations.

Rural general practice is special in terms of training and workforce development because rural GPs are expected to use a broader range of skills.<sup>24</sup> Rural general practice is often very rewarding.<sup>23</sup> However, there may not be enough younger GPs or registrars (25–35 years) coming through to offset the number of GPs retiring in the next five years. Younger GPs are reluctant to work in rural areas over longer periods of time due to lifestyle issues such as the inability to find partners, and the hectic on-call demands.<sup>20,23,24</sup> Furthermore, an ageing GP workforce is going to severely impact on rural general practice.<sup>12,24</sup>

An analysis of the NZ Medical Council's 2007 workforce data showed that, of the 56 NZ districts (excluding the 16 cities) 33 districts (59%) had a population of 30 000 or less with approximately 301 GPs or 311 FTE GPs.<sup>28</sup> This was approximately 9.5% of the total number of GPs or 10% of the FTE GPs. In 2007, 3195 GPs worked the equivalent of 3048 full-time GPs, whereas the 301 GPs in the districts with <30 000 people worked the equivalent of 311 GPs. This is congruent with the survey finding that rural GPs

(mostly older GPs) work longer hours due to a shortage of GPs.

The Medical Training Board (MTB), in one of its discussion documents, *The Future of the Medical Workforce* (Sept. 2008), stated that the Auckland region is expected to see continued strong population growth over the next three decades, while in the same period all other regions will begin to decline, some quite significantly. Arguably this may lead to further urbanisation of an already 'highly urbanised country'. This demographic change indicates that the short-term forecasting of the supply and demand of doctors and other health professionals will become problematic, the demand for medical services will change, and continual change is likely in the service mix available at hospitals outside the main centres as rural and smaller cities depopulate.

The GP workforce is an integral part of the NZ primary health care workforce, and is currently facing many challenges. If NZ continues to strive towards a health system that has an enhanced primary health care focus, then constructive actions are needed. Stakeholders need to:

1. Ensure that NZ remains an attractive primary health care environment in order to retain NZ GPs and attract IMGs;
2. Examine trends towards GPs attaining a better work/life balance;
3. Examine trends towards GPs' choice of work such as self-employment and the changes to the small business model; and
4. Ensure for efficient and effective strategic workforce planning by consolidating and standardising national workforce data to improve timeliness, accuracy and comparability.

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## COMPETING INTERESTS

Madhukar M Pande is the Advisor (Research) at the RNZCGP.