

New Zealand Annual Rural Workforce Survey 2002

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Retaining the Spirit of the Centre for Rural Health

2002

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To all of you my inestimable thanks. I hope that the flow-on effects of this workforce monitoring will justify the efforts you have made.

Martin London

EXECUTIVE SUMMARY

The survey reported here follows on from the original retrospective survey of rural practitioners 1995–99, the Annual Rural Workforce Survey 2000, and the Annual Rural Workforce Survey 2001 (National Centre for Rural Health, 2000, 2001, 2002) The data contained in this report relates to the situation for rural health practitioners in New Zealand for the year ending 31 December 2002, both changes occurring during the year and the situation as it stood on 31 December 2002.

Ongoing refinement of both the basic database and the surveying process, plus an increasing familiarity with the territory, have combined to provide a greater confidence in the accuracy of the current database. Cross-checking and comparison of the various databases now allows them to be used in a wide variety of ways for workforce planning or research. The list of databases is given in Appendix B. The databases themselves are held by the Ministry of Health.

The report includes information on:

- rural shared roster areas
- rural practices
- general practitioners (in considerable detail)
- rural nurses (in less detail)
- workforce fluctuations
- workloads as measured by doctor:populations.
- linkages to geographic information systems (GIS) population census data and travel times to services.

The workforce data is based on 100% return of known rural practices in New Zealand. The GIS data is based on 67% return from individual practices for verification of deduced shared roster area boundaries, accounting for 85.5% of the shared roster areas themselves.

Shared roster areas (SRAs)

- There are 109 SRAs, down from 113 in 2001.
- Changes are due to reductions relating to seven mergers (involving 15 practices) and three withdrawals from rural status; and increases relating to reinstatements to rural status and one SRA splitting into two.

Rural practices

- There were 216 rural practices identified, up from the 209 in 2001.
- Deletions were due to eight rural practice closures, three mergers, three ceasing to be rural; additions were due to eight practices not previously identified coming to light through local enquiries, and 10 being discovered on the HealthPAC rural bonus claimant database.

- Five independent practices previously grouped as two were duly separated, adding three to the total.
- This gain in number of *recorded* practices does not represent an increase in the rural workforce, and *obscures the losses of the seven practice closures* noted above.

Rural GPs

- In 2002, 477 rural GPs provided 396.0 full-time equivalents (FTEs).¹
- Of the current rural GPs, 146 are female (53 full-time, 93 part-time) and 331 are male (278 full-time and 53 part-time).
- The recruitment of 64 GPs (48.5 FTEs) and the loss of 69 GPs (53.6 FTEs) represent a net loss of five GPs and 5.1 FTEs (compared with a gain of eight GPs but a loss of 0.8 FTEs in 2001).
- Popular areas such as Wanaka and Queenstown continue to attract extra GPs. DHBs whose SRAs needed particular attention at the end of 2002 were Lakes, Taranaki, Wanganui, Mid-Central and Canterbury.
- The slight gains in workforce of the previous year have been lost in 2002. The pattern continues to show practitioners happy to move to rural areas nearer to main centres, with a notable gain in the 35–45 rural ranking score (RRS) bracket, but even greater losses of both GPs and FTEs in the more remote, higher RRS areas. The North Island seems to have fared worse than the South Island.

Rural nurses

- The survey concentrated on rural nurses contributing substantially to first on-call services, but also began to explore rural clinics run by nurses with varying degrees of medical back-up, but not necessarily providing on-call services.

Nurse-led rural services

- Forty-one nurses (27 with PRIME or other trauma training) provided nurse-led primary care and on-call services in 20 locations (up from 20 nurses in nine locations recorded in 2001, although many of the newly found services were already operational in 2002).

Nurse participation in on-call service

- Fourteen practices were identified in which 28 nurses substantially contribute to on-call rosters. A further eight were supported by 17 rural nurses on an occasional basis; 41 of these 45 nurses were PRIME trained (in 2001 19 practices used 40 nurses, 31 with PRIME training).

¹ Full Time Equivalent for this survey is defined as a practitioner (self reported) doing eight-tenths or more.

Workforce turnover

- Allowing for the 12 practitioners who moved from one rural location to another, there was a turnover of 10.9% gain and 11.9% loss, compared with 13.6% gain and 11.8% loss during 2001. These figures are confounded by a greater recorded workforce due to newly discovered rural practices.
- In contrast to 2001, loss in 2002 exceeded gain.
- The ages of both departing and arriving doctors cluster in the 30–45 years group, with another small peak in the 51–55 years group. This is consistent with the finding that the shorter the time doctors are in rural practice, the more likely they are to leave: 25% of the workforce who had been present for less than two years left during 2002. The majority intending to leave in the next two years are in the same age groups, even when expressed as a percentage of those present in rural practice: 26% of 30–35-year-olds and 16% of 30–45-year-olds intend to leave.
- This finding is significant for anticipating future losses.

Origins and destinations of rural GPs

- Of the 64 GPs recruited to rural practice, 32 came from within New Zealand and 32 from overseas.
- More arrived than before from urban practice, and there were two from the GP Vocational Training Programme, perhaps indicating an improved perception of rural practice.
- The main overseas source remains the UK, but there is a notable increase from other countries, including six arriving from the USA (although four of these stayed for less than a year).
- Of the 69 departing GPs, 46 remained in New Zealand (10 moving to other rural locations) and 21 went overseas. The pattern of New Zealand destinations is unchanged, most going to urban practice. Only 12 went overseas in 2001.
- In 2002 the number going to Australia doubled from four to eight, while drift to other countries increased from two to ten (including the four returning to the USA).

Workload

- One-third (32%) of rural SRAs have doctor:patient ratios above the 'alert level' of 1:2000 proposed in *Implementation of the Primary Health Care Strategy in Rural New Zealand* (Ministry of Health 2002).
- Only 21% of SRAs have ratios of 1:1400 or less, and 44% have ratios less than 1:1800.
- The overall rural doctor:patient is 1:1939, carried out by 366.5 FTEs. To bring the ratio down to 1:1500 would require a further 107 FTEs (although this may be an overestimate as it is based on GP to census populations assuming 100%

of residents access their care from their nearest GP. Some rural people living closer to urban centres may, in fact, visit a GP at the urban centre).

- GP estimates of workforce shortfall in their practices are for an extra 113 practitioners, representing 98.3 FTEs.
- It is important to note that these figures relate to doctor:population ratios, and current or future creative involvement of other practitioners (notably rural nurses) may reduce the number of medical recruitments required.

On call Rosters

- The spread of on-call rosters being worked showed:
 - 1:1 and 1:2 – 48 practitioners in 35 SRAs
 - 1:3 and 1:4 – 127 practitioners in 32 SRAs
 - 1:5 and 1:6 – 185 practitioners in 25 SRAs
 - 1:7 or more – 98 practitioners in 17 SRAs.
- There were 84 practitioners still working more than 1:4 in 47 SRAs.
- While these numbers appear unacceptable, we look forward to much improved figures in 2003 resulting from the Reasonable Roster Fund initiative.

Stability of SRAs

- The following criteria for evaluating the stability of SRA have been proposed:
 - previous turnover of practitioners
 - current workforce adequacy with respect to doctor:population ratios and on-call requirements
 - anticipated workforce attrition
 - deprivation indices of localities
 - subjective local features.
- This is too complex a task to perform for all 109 SRAs. We discuss ways in which DHBs may choose to make their evaluations of the SRAs in their own localities based on the data available in this survey.

Conclusions

The 2002 survey has made further progress in achieving greater detail and accuracy of the rural frontline workforce, particularly for GPs. Similar detail for the rural nurse workforce requires further study.

There are still concerns that there has been no growth in the rural workforce as a whole, and the less challenging, more desirable locations are gaining while others experience loss. There remains a large deficit between the current and the desirable rural workforce. While a growth in the number of rural nurses has provided some

compensation, there is still cause for concern if their back-up from medical colleagues in rural teams is threatened.

The finding that those leaving rural practice are predominantly younger and stay for a shorter time suggests that there is still much to be done to create a working environment where young doctors come and stay rather than visit and leave. Investing in practice and community capacity to support rural-based clinical education could well improve the reality of rural practice and the exposure of young clinicians to a worthwhile career.

The information derived from the survey can be used to monitor the impact of planned and evolutionary changes in the rural primary health care environment and guide future initiatives to bring the workforce up to strength. It also provides a basis for further research into the delivery and clinical aspects of rural healthcare.

INTRODUCTION

Overview

Following the original retrospective survey of recruitment and retention of rural practitioners during 1995–99 (National Centre for Rural health 2000), annual rural workforce surveys have been carried out for the three years 2000 and 2001 (National Centre for Rural Health 2001, 2002), and now 2002. Their aim is to evaluate the state of the rural primary care workforce in relation to its ability to meet community requirements, and to estimate future trends. Examining the status quo and fluctuations of the front-line practitioners provides information on their retention, and on recruitment requirements for building and maintaining effective and well-supported rural primary health care teams.

Database drift

It is useful to be able to make comparisons between years in order to relate the successes in retention and recruitment to local or national changes, either in terms of the overall political and economic environment or specific rural health initiatives. Making these comparisons requires having comparable processes and databases each year. This is marginally problematic here, because obtaining the original database was very difficult and, while refinement of the process over subsequent years has led to much more accurate and more complete coverage, direct comparison of numbers need to be treated with caution. However, as these refinements become less significant over the years, comparisons are becoming more meaningful.

A further challenge to making survey comparisons is that the organisation of rural practices is undergoing constant change, especially with regard to on-call arrangements. A number of practices closer to provincial centres are establishing on-call agreements with emergency departments, or 'A and M clinics'. In a few situations these modifications mean that the practices no longer carry the characteristic extra challenges to qualify as rural on the Rural Ranking Scale (ie, they have fewer than 35 points on the scale). This means there have been both additions to and deletions from the list of rural practices, causing apparent workforce fluctuations that don't in fact represent gains or losses of services to rural communities.

Roster changes

The provision of Reasonable Roster Funding aimed at relieving onerous rosters (1:1 to 1:3) is expected to improve the stability and raise the morale of the more remote practices. This should be demonstrated as a marked decrease in the proportion of rural practices on challenging rosters.

New information

Refining the surveys creates the opportunity to gather new sets of data. We have resisted doing this, primarily because surveys are a considerable burden to practices and we don't want to add to this. We have instead attempted to provide each

practice with what information we have pre-entered on their profiles, seeking only corrections or modifications. However, we have added a few questions to the 2002 survey regarding:

- the age and gender of practitioners
- District Health Boards
- use of telephone triage services
- practitioners' own perceptions of workforce shortages and replacement needs.

The improved survey process

The 2002 survey was completed more quickly than previous surveys, giving the advantages of more accurate recall and less confusion between events before and after 31 December 2002. This has further added to its accuracy and enabled more rapid processing, and the presentation of more up-to-date information for use by the rural health sector.

Aims

The survey sought information in order to evaluate the current and future adequacy and stability of the rural workforce in each shared roster area (SRA). Practices sharing on-call rosters are interdependent, which has a profound impact on the stability of these services. The SRAs therefore serve as a good framework for identifying vulnerable areas in need of further support.

The survey focused on gathering the following information:

- the total number of SRAs, practices and practitioners
- practices that have opened, closed, merged or withdrawn from rural status
- age, gender and tenths per week worked for each practitioner
- changes to rural nurses' contributions to practice leadership and on-call services
- the use of nurse triage services for rural on-call support.
- arrivals and departures, including the origins and destinations of rural practitioners
- length of service of the current rural GP workforce
- practitioners' perceptions of workforce inadequacies and future needs
- practitioners' intentions to leave rural practice
- populations within SRAs
- doctor:population ratios
- on-call rosters of practitioners
- the stability of SRAs.

Method

The 2001 Annual Rural Workforce Survey database was used to identify the 209 practices needing to be revisited. This list included information about practices that had opened, closed, merged or ceased to qualify as rural according to the Rural Ranking Scale. Further additions came from the discovery of previously missed rural practices that emerged during enquiries concerning the current survey, and from cross-references to the HealthPAC database of practitioners receiving a rural bonus.

On 30 January 2003 each practice was sent a record of their practice profile by mail, with instructions on how to indicate changes to their circumstances and correct any inaccuracies (see Appendix A). They were invited to mail, or preferably fax, back their modified profiles. A reminder was faxed to non-responders six weeks after the initial mailing, including an opportunity to state if they believed they had already responded or to request a duplicate profile. A third circulation of duplicate surveys was sent to persistent non-responders four weeks later. The final group of non-responders was contacted by phone, and the complete harvest of 100% of practice returns was achieved by mid-June 2003.

Much follow-up work was subsequently required, involving hundreds of phone calls and faxes to collect data omitted on the survey returns or to clarify ambiguities. The data was applied to Excel spreadsheets for detailed analysis (see Appendix B).

Creating an *Atlas of New Zealand Rural Health Services*

Complementary to the rural practice survey has been the geographic exercise of defining SRA boundaries. This has been carried out as a collaboration between Rural Health Consultancy and the Public Health Informatics Applications Laboratory (PHIAL), based at the School of Earth Sciences of Victoria University, Wellington.

Hand-drawn boundaries were derived from physical and social geographic considerations, and where possible were checked with practitioners from the rural localities to create draft SRAs. The team at PHIAL used these boundaries to draft a geographic information system (GIS) model along census meshblock boundaries.

The resulting map relating to each SRA was sent to each practice within the SRA for correction of the boundaries to improve their accuracy. Where there were conflicting opinions within an SRA or between adjacent SRAs about where the boundaries should lie, the conflicts were resolved either by direct discussion with the practices concerned or by a roughly equal apportionment of overlapping areas to the adjacent SRA (see Appendix C).

In addition to boundary confirmation, information was sought regarding:

- the location of and attendance at peripheral clinics
- areas of impaired cellular phone reception
- other important local features affecting the delivery of rural health services.

These features have been completed to produce a soon to be released *Atlas of New Zealand Rural Health Services*.

The boundary information and populations involved provide the 'other side to the equation' of the relationship between rural providers and rural communities. At the simplest level this involves practitioner:patient ratios. Beyond this there is the possibility of a far more complex analysis of primary health care services and detailed population characteristics based on census data captured in SRA meshblocks.

Survey returns

The initial survey sent out on 31 January 2003 generated a 66% return. The second contact to non-responders, made by fax in mid-March, raised the response to 75%, and a duplicate set of practice profiles with a further letter of encouragement went out in mid-April. By mid-May 20 practices' returns (10%) were still outstanding and were gradually gathered via (sometimes repeated) telephone contact over the following month.

With the limiting factor in this process being the capacity of rural practices to respond, the information derived is about as current as is likely to be achieved. However, six months is a long time in rural health, and recent discussion with practitioners shows that some apparently stable areas are back in crisis, while elsewhere longstanding problems have, for the time being, been resolved.

SURVEY RESULTS

Shared roster areas (SRAs)

At the end of 2002, having absorbed the changes to rosters carried out during the year, there were 109 SRAs, compared to the 113 SRAs recorded in 2001. This was the net result of the following changes.

Seven weekend rosters merged, involving 15 SRAs and a reduction of eight SRAs:

- Kaitaia with Mangonui
- Waihi with Katikati
- Okato/Oakua with Opunake
- Havelock with French Pass
- Cheviot with Waipara
- Geraldine with Temuka
- Lumsden with West Otago and Eastern Southland.

Three SRAs withdrew from rural status:

- Ngunguru
- Beachlands
- Picton.

Five rural localities were reinstated to rural status:

- Taneatua
- Reporoa
- Waipawa
- Waiouru
- Otaki.

One SRA split into two, with Waiuku becoming Waiuku and Tuakau.

Discussion

Counting the numbers of SRAs and rural practices is becoming a challenging issue. This is related to the current criteria of the Rural Ranking Scale, which rest heavily on the on-call roster to define rural practices. Practices closer to provincial centres are tending to change their roster arrangements to be included in urban on-call co-operatives. In other places, what were independent SRAs have combined for weekend cover but have retained weeknight responsibility for call-outs in their immediate locality.

Deciding whether weeknights or weekends should be the basis for defining an SRA brings us back to the question of why they were created in the first place. Their function is two-fold:

- to create a basis on which to relate the rural workforce to population numbers and the features of those populations, which helps to predict workforce requirements
- to link practices and practitioners that are interdependent with regard to the sustainability of their service, which helps to identify areas that are vulnerable and require support for workforce retention.

Where weekend rosters are shared between localities that are both rural and perform their own weeknight cover, the principal interdependence is the weekend cross cover. The combined populations and their practitioners are all rural, so both requirements of an SRA are fulfilled. Examples are Kaitaia and Mangonui, Cheviot and Waipara, or Geraldine and Temuka, which share weekend rosters and whose on-call demands – and therefore stability – would be threatened if any of the practices lost their practitioners.

Where a rural locality is sharing a roster with an urban centre, these criteria do not apply, so a nominal SRA has been applied in these cases. An example is Waipawa, which is clearly a rural locality with a rural ranking score but does no on-call other than participating in the after-hours service run by The Doctors, Hastings. The practices of Manaia, Eltham and Patea all do their own weeknight call, but each contributes to the roster based in Hawera. They each retain their SRA, indicating the rural communities served by their practices. Pressure on these practitioners tends therefore to be due more to weekday workload than to very frequent weekend on-call commitments.

SRAs and geographic information system (GIS) maps

The returns of the GIS maps from rural practices were incomplete, with only 134 of 201 practices surveyed responding (67%), despite several reminders and offers of assistance. However, the 134 practices covered all but 16 SRAs, resulting in 85.5% coverage. An assumption was made that the remaining SRAs had no undue concerns about their boundaries and the current maps were retained.

Among the responses received, apart from the confirmation of boundaries, there were valuable contributions indicating the presence of peripheral clinics and areas where cellphone coverage is inadequate. What remains incomplete is an indication of the very varied contribution of rural nurses, particularly in the more remote areas. The need for a complementary study of the nurse contributions to rural health beyond those taking first call is evident. This would, however, double the size of the current project. (This is discussed more fully in the section on 'Rural nurses'.)

Discussion

Where changes were indicated on the draft maps, these were almost invariably an expansion of the area covered by practices, sometimes leading to overlapping claims by adjacent practices. These expansions are believed to have been influenced by:

- the tendency to include occasional patients who attend a practice from a relatively distant location from within another SRA emergency response territory
- the Ministry of Health's advice that it intended to calculate 2003/04 rural workforce retention funding based on the census population of the SRA for areas not yet part of a primary health organisation (PHO). (This advice was included in a letter to rural practices enclosed with the maps).

In defining the SRA boundaries, the survey has chosen to accommodate these tendencies by apportioning the overlapping areas roughly equally along available meshblock lines unless there were obvious geographic features to challenge the more extravagant claims. With the current population mobility and choice of providers there is no possibility of, or pretence being made for, complete accuracy of allocation of populations to particular practices or SRAs.

Populations

SRA populations have been derived from the GIS atlas, such that the SRA boundaries are approximated to lie along census meshblock boundaries. The summed populations of these meshblocks provide an approximation of the people served by these groups of practitioners.

There are obvious inaccuracies due to residents seeking primary health care from outside their areas, but we have assumed this cuts both ways. There is also at present no allowance for visitors to an area, who influence resource requirements, particularly in rural tourist locations. The estimation of visitor impacts on New Zealand rural primary health care services is a study waiting to be done, but requires improved information on casuals, which will in time become available as more rural practices join PHOs..

The populations of the SRAs are attached as Appendix D. Their relation to the available workforce is discussed in the section on doctor:population ratios.

Rural practices

During 2002 some rural practices have closed, merged or withdrawn from rural status. None have opened, but others, previously missed, have emerged. At the end of 2002 216 rural practices were identified on the survey database. This compares with the 209 practices recorded for 2001. This net effect is due to the following factors.

Subtractions

Eight practices closed with the retirement of their practitioners from rural practice:

- Opotiki Health Centre (one full-time doctor)
- Willcare Health Ltd, Reporoa (two doctors, 2/10 and 5/10)
- Raglan Medical Centre (one doctor, 1/10)
- Dr Yates (Rangitikei) (one full-time doctor)
- Foxton Medical Centre (one full-time doctor)

- Dr AE Roberts, Geraldine (one full-time doctor)
- Hokonui Health Centre, Gore (one full-time doctor)
- French Pass (nurse-led practice).

Three mergers occurred between rural practices:

- Pauanui with Tairua (Coromandel Peninsula)
- Te Kuiti with Piopio
- Okato with Oakura (Taranaki).

Note that these 'mergers' may in fact represent a reinterpretation of existing arrangements by the workforce survey rather than any formal change in their legal entities.

Three practices changed their circumstances to cease to fulfil rural categorisation:

- Beachlands Medical Centre (four doctors, 2.4 FTEs)
- Ngunguru Medical Centre (three doctors, 1.1 FTEs)
- Picton Medical Centre (five doctors, 3.8 FTEs).

The effect of these changes reduces the total number of practices by 14 from the 209 reported in 2001 to 195.

Additions

Eight practices had not been identified in previous surveys but came to light during inquiries of SRAs:

- Health Te Aroha (three doctors)
- Regan Street Health Centre, Stratford (one doctor)
- Bulls Medical Centre (two doctors)
- Health Care Centre, Wairoa (one doctor)
- Dr K Marriot, Waipukurau (one doctor)
- Dr J Mole, Foxton (one doctor)
- Reporoa nurse-led clinic
- Te Pou Ora, Te Kuiti (one doctor vacancy at 31 December 2002).

Ten practices were discovered through checking the claimants on the Rural Ranking Scale:

- four practices in Tokoroa (nine doctors)
- two practices at Taneatua (two doctors)
- Waipawa (three doctors)
- McMahan Clinic, Waiouru (one doctor)
- Otaki (four doctors)
- Templeton (three doctors).

There were also five independent practices previously grouped as two single entities in error, which when corrected added three to the total:

- Drs Hudson and Morris (previously under Greenwood Medical Centre)
- Drs Bailey and Phillips (previously under Greenwood Medical Centre)
- Dr S Finnegan (previously under Inglewood Medical Centre)
- Dr M Fonseka (previously under Inglewood Medical Centre)
- Dr D Jones (previously under Inglewood Medical Centre).

These 21 additions bring the number of practices back to 216. However, this net gain in number of *recorded* practices does not represent an increase in the rural workforce, and *obscures the losses of the seven practice closures* noted above.

Rural general practitioners

The survey now records 477 rural GPs providing 396.0 full-time equivalents (FTEs) in the 216 practices (see Table 1).

Table 1: Rural GPs, part-time and full-time, by sex

	Full-time	Part-time (avge p/t)	Total
Male	278	53 (0.45)	331
Female	53	93 (0.32)	146
Total	331	146 (0.37)	477

The breakdown of these figures by age is shown in Table 2.

Table 2: Rural GPs, by age group and sex

Age group (yrs)	Female f/t	Female p/t	Male f/t	Male p/t	Total
26–30	1	2	1	2	6
31–35	9	24	19	6	58
36–40	16	25	46	10	97
41–45	9	20	60	11	100
46–50	7	16	56	9	88
51–55	7	4	40	8	59
56–60	3	2	28	1	34
61–65	1	0	20	1	22
66–70	0	0	6	4	10
> 70	0	0	2	3	5
Total	53	93	278	53	477

Note: There was a net loss of 5 doctors and 5.1 FTEs (compare this with a gain of 8 GPs but loss of 0.8 FTEs in 2001).

Table 3: Net gain/loss of GPs

Recruited GPs (FTE)	Departed GPs (FTE)	Practice Closure (GPs) (FTE)	Net Loss of GPs (FTE)
64 (48.5)	61 (47.8)	8 (5.8)	5 (5.1)

In 2001 467 GPs provided 327.4 FTEs in 209 practices. The current figures of 477 GPs and 396.5 FTEs *appear* as an increase in workforce, but are due to a variety of other differences between the databases of the two years.

Gains

- Gains in *recorded* GPs include 30 providing 26.5 FTEs who have been previously present but unrecorded. They do *not* represent a gain to the workforce.
- Sixty-four doctors, representing 48.5 FTEs, arrived in rural practices during 2002; 33 (25.2 FTEs) of these were in North Island SRAs and 31 (23.3 FTEs) in South Island SRAs.
- No new practices opened.

Losses

- Ten doctors came off the database through the reclassification of Ngunguru, Beachlands and Picton.
- Fifty-eight doctors (45.6 FTEs) departed from rural practice, 34 (28.7 FTEs) from the North Island and 24 (16.9 FTEs) from the South Island.
- Eight practices closed, representing eight doctors (5.8 FTEs) who retired or moved away.
- Three doctors (2.2 FTEs) left on sabbatical.

The total loss of workforce was therefore 69 doctors and 53.6 FTEs.

The workforce status and breakdown of the workforce fluctuations into District Health Board (DHB) districts is shown in Table 4.

Table 4: The rural GP workforce, by DHB

DHB	No. of SRAs	No. of practices	No. of GPs	GP FTEs	Gains		Losses		Net gn/l's	
					No. FTEs	No. FTEs	No. FTEs	No. FTEs		
Northland	10	21	63	54.3	6	5.5	-6	-5.2	0	0.3
Waitemata	2	8	23	17.9	0	0	-3	-1.3	-3	-1.3
Auckland	2	3	8	5.8	3	2.2	-2	-1.7	1	0.5
Counties–Manukau	2	3	12	9.6	1	0.3	0	0	1	0.3
Waikato	15	35	89	75.3	9	6.1	-11	-8.6	-2	-2.5
Bay of Plenty	6	11	25	19.9	3	1.9	-2	-1.3	1	0.6
Tairāwhiti	4	4	7	6.1	1	1.0	0	0	1	1.0
Lakes	2	4	2	2.0	0	0	-4	-2.4	-4	-2.4
Hawke's Bay	4	9	15	13.4	6	5.5	-3	-3.0	3	2.5
Taranaki	7	14	19	17.0	3	1.7	-6	-6.0	-2	-4.3
Wanganui	4	6	10	9.5	0	0	-3	-3.0	-3	-3.0
Mid-Central	4	6	15	12.2	1	1.0	-1	-1.0	0	0
Wairarapa	1	4	8	7.2	0	0	0	0	0	0
Nelson–Marlborough	6	11	27	18.3	6	2.4	-4	-1.3	2	1.1
West Coast	8	10	12	11.6	5	5	-4	-4.0	1	1.0
Canterbury	9	16	39	28.3	3	2.8	-5	-3.4	-2	-0.6
South Canterbury	5	10	15	13.6	3	2.2	-3	-2.2	0	0
Otago	11	26	53	47.8	6	4.6	-6	-3.6	1	1.0
Southland	7	15	35	26.2	8	6.3	-6	-5.6	2	0.7
TOTAL	109	216	477	396.0	64	48.5	-69	-53.6	-5	-5.1

Discussion

It is difficult to compare this table with its equivalent last year because of errors in the returns from the practices and minor reclassifications. At best comparisons can be impressionistic. The most useful columns are those indicating gains and losses of GPs and FTEs.

Gains in 2001 and 2002

In 2001 gains were noted in Waitemata (12.5%), Counties–Manukau (13%) and Bay of Plenty (9%) in the North Island, and Nelson–Marlborough (14%) and West Coast (15%) in the South Island.

In 2002:

- Waitemata lost those three doctors – perhaps an effect of arrivals and departures close to the cut-off dates
- Counties–Manukau gained a doctor
- Bay of Plenty gained a doctor (0.6 FTEs)
- Nelson–Marlborough gained a further two doctors in a fairly high turnover
- West Coast gained another full-time doctor

- Otago added an extra 1 FTE (in Wanaka) to the three from 2001
- Southland replaced the previous two lost in 2001 with arrivals in Queenstown.

Losses in 2001 and 2002

In 2001 Wanganui (–12.5% GPs and FTEs) and Mid-Central (–17% FTEs) showed significant percentage losses, but the figures tend to be magnified due to the small total workforce.

In 2002:

- Wanganui lost again, down three GPs (three FTEs). Nearby, Taranaki also experienced a net decline (15%) and high percentage workforce turnover (25%).
- One of the most pressed localities at the end of 2002 was Lakes DHB, where the workforce in Turangi halved to two GPs. The two doctors serving part-time at Reporoa ceased to attend, and Reporoa continues as a nurse-led clinic.
- Waikato, with the largest rural GP population of 96 practitioners, lost two in 2001 and a further two in 2002, but combined this represented only 1.7 FTEs.
- In the South Island, Canterbury, having lost one (2.1 FTEs) in 2001, lost a further two (0.6 FTEs) in 2002, mainly due to uncompensated losses in Darfield and Oxford.

In summary, the popular areas continue to gain workforce. Areas needing attention at the end of 2002 were Lakes (especially Turangi), Taranaki (practices around Hawera), Wanganui, Mid-Central (especially Foxton) and Canterbury.

Rural nurses

Building on the emerging picture from 2001, we are starting to get a clearer idea of the diversity of nurse contributions, although the database has not been worked up to provide the complexity of detail achieved for GPs. Opportunistic inquiries, as described below, have revealed examples of extremely variable arrangements involving large numbers of rural nurses, and this requires independent study.

Focusing on those nurses who participate in *on-call work* tends to be more congruent with the nature of the workforce survey as they are more likely to be recruited from elsewhere to specific positions, whereas practice and hospital nurses tend to be recruited from within the community. This is not to ignore those nurses, long-time resident in their communities, who find themselves providing steadily increasing on-call services in response to local needs.

Rural nurses are taking an increasing role in leading and supporting rural primary health care services. The 2001 survey reported on 20 nurses providing the main substance of the service in nine sites, with the support of GPs who visited periodically providing back-up in emergencies. Nineteen of these nurses had completed the PRIME course. Another 40 nurses participated in on-call rosters within 19 general practices, 31 of whom were PRIME qualified.

Nurse led clinics

In 2002 the most dramatic change was in the emergence of many more rural clinics being led by rural nurses (see Table 5). Twenty locations were served by 41 rural nurses, 27 with PRIME or other trauma training; 18 of these sites had formal arrangements for visits or back-up from the nearest GP. Stewart Island obtained their back-up from the Emergency Department (ED) at Invercargill, and Matawai from the ED in Gisborne.

Not all these clinics have the degree of isolation of those noted in 2001. Some, such as Nightcaps and Ohai, are less than half an hour from their related general practices. Those without trauma training tend to be in clinics providing primarily a daytime service, but these nurses still get called out in emergencies even if not formally providing cover. Such features have not been systematically studied.

Table 5: Nurse-led clinics with GP or ED back-up

Clinic name	SRA Name	Nurses	Prime	Support 1
North Island				
Kohukohu	Hokianga	1	?	Rawene
Gt Barrier Is. – central	Gt Barrier Is.	2	2	Aotea Health
Gt Barrier Is. – south	Gt Barrier Is.	1	1	Aotea Health
Gt Barrier Is. – north	Gt Barrier Is.	1	1	Aotea Health
Matawai	Waikohu	1	(Ambulance Level 3)	ED Gisborne
Reporoa	Reporoa	4	1xA&E n'se, 2x406	Rotorua GPs
Takapau & Norsewood	C & S Hawke's Bay	7		Waipukurau (T) Dannevirke (N)
Eketahuna	Southern Tararua	2		Bush Trust
Chatham Islands	Chatham Is.	3	2	Chat. Is. Dr
Pitt Island	Chatham Is.	1	1	Chat. Is. Dr
South Island				
Moana/Otira	Moana/Otira	3	2	Dobson
Harihari	Whataroa	1	1	Whataroa
Whataroa & Franz Josef	Whataroa	1	1	Whataroa
Fox Glacier	Fox Glacier	1	1	Whataroa
Haast	Haast	1	1	Whataroa
Middlemarch	Greater Taieri	5	5	Outram
Nightcaps	Western Southland	1	1	Otautau
Ohai	Western Southland	1		Tuatapere
Tokanui	Tokanui	2	2	Visacom
Stewart Island	Stewart Island	2	2	ED Invercargill
Total nurses		41	23	

Nurse participation in on call rosters

General practices employing nurses to alleviate on-call demands have also increased in number in 2002 (see Table 6). Fourteen practices were identified in which 28 nurses substantially contribute to on-call rosters. A further 17 rural nurses contributed to on-call rosters of eight practices on an occasional basis; 41 of these 45 nurses were PRIME trained.

Table 6: Practices in which nurses share on-call rosters

Practice	SRA	Nurses sharing	Roster	Occ Call	Prime
North Island					
Waipu Medical Centre	Ruakaka	1	1:2		1
Aotea Health Ltd	Great Barrier Is.	4	1:1 in area		4
Riverslea Medical Centre	Rangataiki	1	1:4		
Te Kaha Medical Centre	Te Whanau/Apanui			2	2
Matakaoa C H Centre	Te Araroa	2	1:3		2
Uawa Comm. H Centre	Tolaga bay	2	1:3		2
Kawhia Medical Centre	Kawhia			1	1
Raetihi Medical Centre	Waimarino			2	2
South Island					
Karamea Medical Centre	Karamea	2	2:5		2
Murchison Health Centre	Murchison	3	1:3W/e		3
Reefton Medical Centre	Reefton			3	3
Cheviot Com. H. Centre	Waipara/Cheviot			2	2
Hanmer Springs M Centre	Amuri/Hamner	1	1:4	1	2
Amuri Comm. H/Centre	Amuri/Hamner			1	1
Oxford Comm. H/Centre	Oxford	1	1:2W/e		1
Diamond Harbour Surgery	Diamond Harbour	3	1:5W/e 1:5W/d		3
Kurow Medical Centre	Kurow	2	1:2W/e		1
Ranfurlly Medical Centre	Maniototo			3	3
Roxburgh Medical Centre	Roxburgh	4	1:4W/e		4
Lawrence Medical Centre	Milton/Tuapeka	1	1:2W/d		1
Lumsden Medical Centre	Lumsden	1	1:2		1
West Otago Health Ltd	West Otago			2	?
Total		28		17	41

Discussion

Nurse-led clinics

The nurse-led clinics at French Pass and Moana/Otira, the five on the West Coast between Harihari and Haast, at Tokanui in Southland and on Stewart Island were known to us from previous surveys. It has also become clear that some isolated areas classified as GP practices, such as at Great Barrier Island and the Chatham Islands, actually function as a number of different nurse-led clinics with a doctor living in the area and moving between them.

A chance remark on the 2002 practice profile return from Tokanui led to the identification of three more nurse-led clinics in Southland. Ohai and Nightcaps, both

of which opened about three years ago, functioned as nurse-led practices until very recently, when the nurses at both clinics left the area to escape the continuous, informal on-call. They now function as out-clinics of the Otautau and Tuatapere practices, with the nurses travelling into the area and available in the daytime only. A new clinic in Wyndham opened early in 2003.

In the North Island, nurse-led practices were identified at Reporoa, Eketahuna, Takapau/Norsewood and Matawai. There are likely to be others.

A characteristic common to all newly identified nurse-led services is that they are the result of initiatives from nurses living within communities in response to persistent approaches from locals. As one said, 'I was being asked to help out all the time so I thought I'd formalise what was happening anyway and get paid for it. I approached the DHB and got some funding'. Another common feature is that they are often unaware of any similar services in the locality. Eketahuna and Takapau/Norsewood knew of each others' existence but of no others in the North Island. The Reporoa nurses and the nurse at Matawai both believed that theirs was the only such service in the North Island. The nurse at Matawai in particular sounded very isolated from any form of peer support.

Not all these nurses have more than registered nurse qualifications, but all are very experienced. Some have PRIME, and others have undertaken study through the Rural Health Diploma offered by the Christchurch School of Medicine. All have had experience as practice nurses in rural GP practices. Officially, none do first call, but are approached anyway 'because they are there' and any other medical services are 'a long way away'. Examples are Matawai, which is distant from Gisborne, now that there is no longer a doctor living in Te Karaka; and Kohukohu, isolated from Kaitaia or Rawene after the Hokianga ferry service shuts down at dusk.

Clearly there is a continuum within nurse-led services. The Chathams, Great Barrier, Moana/Otira, Tokanui, the four South Westland clinics and Stewart Island have Rural Diploma and PRIME-trained nurses, mostly recruited from outside the community. They are paid to be available 24 hours per day, are covered by another nurse for days off each fortnight, and have paid annual and study leave. At the other extreme are those situations where local women who happen to have nursing qualifications have succeeded in obtaining funding for some half-day clinics a week, but their local communities make greater demands on them on an informal basis.

Another continuum, separate from the first, is based on the level of involvement of a 'neighbouring' GP practice. The West Coast and Southland practices and Eketahuna and Matawai have GPs who visit to conduct weekly or fortnightly clinics. GP involvement in the Reporoa, and Takapau clinics is limited to availability for telephone back-up during normal working hours only. After-hours back-up comes from the ED at the local base hospital, and they all have close relationships with the local ambulance or fire services (where they exist). Some have 'Ambulance Level 3' qualifications, and most go out with every fire or ambulance call-out as volunteers. They use members of these volunteer services as 'minders' when they are called to unfamiliar or risky situations at night.

Awareness of the existence of other nurse-led clinics came too late for any further attempts to identify them for the 2002 Workforce Survey. Searching for these practices and classifying them according to the level of service provided is an area for research in any future national survey, but it will involve extensive research. In view of the ranges of commitment, from full-time to routine daytime rural practice nursing, it will be difficult deciding on what level of nurse involvement to limit the study to, to avoid it becoming a vast project.

Nurse triage services

The Healthline nurse primary care telephone triage service was established in 2000 and was expected to provide some relief to rural doctors from on-call demands. Some other similar services have emerged since. An increasing number of practices are starting to use telephone triage to improve the sustainability of their services, which suggests they have a contribution to make. Other practices have over time evolved their own triage arrangements, usually based on the local rural hospitals. In these situations the nurses provide face-to-face triage as well, and this creates perhaps the best way of integrating resources to provide a safe service. It is appreciated by patients and protects on-call doctors from frequent interruptions while alerting them to serious situations. Seven practices in the North Island and six in the South Island employ this arrangement (see Table 7).

Table 7: Practices using rural hospital triage

Practice	Location	SRA	Nurse triage phone	Nurse triage personal
North Island				
Hokianga Health Ent. Trust	Rawene	Hokianga	Rawene Hospital & local nurses	
Whangaroa Health Centre	Kaeo	Whangaroa	Residential Care Service	
Te Whare Hauora o Ngati Porau	Te Puia Springs	Te Puia Springs	Te Puia Hospital	
Uawa Community Centre	Tolaga Bay	Tolaga bay	Te Puia Hospital	
Taihape Rural Health Centre	Taihape	Taihape	Taihape Hospital	
O'Brien & Stephens, Drs	Waipukurau	Central Hawke's Bay	CHB Health Centre	
Barraud Street Health Centre	Dannevirke	Southern Hawke's Bay	Dannevirke Hospital	Hospital RNs
South Island				
Golden Bay Medical Centre	Takaka	Golden Bay	Golden Bay Comm. Hospital	
Buller Medical Service	Westport	Westport	Buller Hospital	Hospital RNs
Reefton Medical Centre	Reefton	Reefton	Reefton Hospital	
Akaroa Health Centre	Akaroa	Akaroa	Akaroa Hospital	
Ranfurly Medical Centre	Ranfurly	Maniototo	Maniototo Hospital	
Gore Medical Centre	Gore	Eastern Southland	Gore Hospital	

Telephone triage

During 2002 the Healthline nurse-attended telephone triage service was being trialled in four regions: Northland, Tairāwhiti, Canterbury and the West Coast. Increasing use of telephone triage services is evident, particularly in the North Island, where 23 practices out of 128 use Healthline, Homecare or Procure. In the South Island only three of the 89 practices use one of these services. In two adjacent SRAs (Opotiki and Te Kaha) three out of four practices use a triage service provided by an independent nursing service (see Table 8).

It is interesting to note that within one shared roster area, most but not all practices may use a particular telephone triage service. This means that the patients of particular practices presumably make heavier demands on whichever GP is on call.

An original triage arrangement exists at Waipu where the GP and his PRIME-trained nurse/wife share call during the week, and share telephone triage duties during the weekend, but refer any patient who needs to be seen to the White Cross Clinic in Whangarei.

Table 8: Use of telephone nurse triage services

Practice	RRS	SRA	Nurse triage phone
North Island			
Coopers Beach Medical Centre	75	Mangonui	Healthline
Kaitaia Health Centre	55	Kaitaia	Healthline
Top Health	55	Kaitaia	Healthline
Broadway Health	50	Kaikohe	Homecare
Kawakawa Medical Centre	50	Bay of Islands	Healthline
Dargaville Medical Centre	45	Dargaville	Healthline
Ruakaka Medical Centre	55	Ruakaka	Healthline
Huapai Family Medical Centre	40	South Kaipara	Procure
Waimauku Docs	40	South Kaipara	Procure
Aotea Health Ltd	80	Great Barrier Island	Rural Nurses
Hauraki Plains Health Centre	50	Hauraki	Homecare
Health Te Aroha	40	Te Aroha	Homecare
Te Korowai Hauora o Hauraki	40	Te Aroha	Procure
Mercury Bay Medical Centre	55	Tairua	Homecare
Pauanui Medical Centre	85	Tairua	Procure
Waihi Beach Medical Centre	45	Waihi	Homecare
Waihi Health Centre	45	Waihi	Homecare
Katikati Medical Centre	40	Katikati	Homecare
Porritt Clinic	35	Kawerau	Homecare
Church St Clinic	75	Opotiki	Opotiki Ind.Nurses
Te Kaha Medical Centre	95	Te Whanau/Apanui	Opotiki Ind.Nurses
Otorohanga Medical Centre	50	North King Country	Homecare
Patikura Medical Centre	70	Turangi	Homecare
Town Centre Surgery	70	Turangi	Homecare
Turangi Healthcare	70	Turangi	Homecare
South Island			
Queen St Surgery	70	Westport	Healthline
Westland Medical Centre	50	Hokitika	Homecare
Hurunui Health Centre	60	Waipara/Cheviot	Healthline

Recruitment and losses of rural GPs

Origins and destinations of rural GPs

The value of monitoring the origins and destinations of the rural health workforce lies in providing a window on the motivations of practitioners, and what is influencing their choices. This offers opportunities for improving the working context of rural practice to meet practitioners' needs, and for directing recruitment drives at the more promising sources.

Origins and destinations are presented in Tables 9 and 10, showing figures for both 2001 and 2002 to highlight changing patterns and aggregates.

Table 9: Origins of arriving rural GPs, 2001 and 2002

Source	2001	2002
<i>From within NZ</i>		
Urban general practice	13	16
Other rural practice	9	12
Urban hospital	1	0
Small hospitals	4	1
GP Training Programme	0	2
Rural locum	0	1
Total	27	32

<i>From overseas</i>		
United Kingdom	20	15
South Africa	5	3
Australia	1	1
Other *	3	13
Total	29	32

* Other includes, in 2002, USA (6), Germany (2), Sri Lanka, Canada, Zimbabwe and the United Arab Emirates.

Note that the patterns of recruitment are reasonably constant, divided equally between domestic and overseas recruitment.

Table 10: Destinations of departing rural GPs, 2001 and 2002

Destination	2001	2002
<i>Within NZ</i>		
Urban general practice	19	23
Urban specialty	1	3
Other rural GP	9	10
Maternity	2	0
Sick leave	2	0
Retirement	6	6
Sabbatical	0	3
Unknown	0	3
Total	39	48
<i>To overseas</i>		
United Kingdom	6	3
Australia	4	8
Other countries	2	10
Total	12	21

Discussion

While the total numbers of GPs arriving are small, we can still speculate about the causes of early changes in origins and destinations of migrating rural GPs. Within New Zealand more have chosen to move between rural practices, and we have some recruits from the GP Vocational Training Programme. Three GPs left urban practice to take up rural practice.

From overseas, fewer came from the UK and South Africa in 2002 and more from 'Other' countries, especially the six from the USA. However, these latter include four who returned home in the same year, so perhaps do not reflect an easier immigration policy or people seeking refuge in an unsafe world but rather doctors on sabbatical.

There has been an increase in losses, mainly in the 'To overseas' group. Domestically, apart from the overall increase, there are no notable pattern changes. Overseas destinations are changing, with the higher salaries of Australia probably showing their effect. The UK was in the midst of GP contract negotiations during this period, where conditions were seen to be more an issue than money. The lower drift in that direction contrasts with the lower recruits from the UK. The 'Other countries' group includes USA (five), Canada (two), Dubai, Malawi and South Africa. The five from the USA include four of those who arrived in the same year – possibly sabbatical seekers rather than émigrés.

The imbalance between those who came from rural practice (12) and those who departed to rural practice (10) reflects an arrival who had left in 2001 and returned during 2002 after a short break, and a departee who went to join the rural locum workforce.

All these changes, and the speculations on their causes, must be considered in the context of fairly low overall numbers, making any conclusions highly tenuous.

Recruitment and losses of GP workforce against rural ranking scores

We have tended to divide the rural SRAs into brackets of rural ranking scores to recognise different styles of practice as locations become more remote. The readiness of practitioners to work in small towns within an hour of regional centres, where sharing of urban after-hours rosters may be possible, may obscure the reluctance of others to work in remote areas. Alternatively, practitioners might delight in either the deep rural environment or city life but reject compromise locations.

Dividing the SRAs in the rural ranking score brackets of 35–45, 50–65 and 70–100 not only reflects different types of practice, but also conveniently divides them into roughly equal-sized groups. However, *the total numbers of doctors* in these groups are heavily weighted to the lower rural ranking scores. The results are shown in Tables 11, 12 and 13.

Table 11: Gains and losses of GP workforce by rural ranking score groupings of North Island SRAs

RRS of SRA* (No. of SRAs)	Gain GPs	Gain FTEs	Loss GPs	Loss FTEs	Net GPs	Net FTEs
35–45 (23)	14	10.9	–14	–9.4	0	+1.5
50–65 (21)	15	11.7	–18	–15.7	–3	–4.0
70–100 (18)	4	2.6	–9	–8.4	–5	–5.8
Total (62)	34	25.2	–41	–33.5	–8	–8.3

* Excluding rural nurse-led SRAs

Table 12: Gains and losses of GP workforce by rural ranking score groupings of South Island SRAs

RRS of SRA* (No. of SRAs)	Gain GPs	Gain FTEs	Loss GPs	Loss FTEs	Net GPs	Net FTEs
35–45 (11)	9	8.9	–9	–7.2	0	+1.7
50–65 (18)	22	14.4	–17	–10.9	+ 5	+3.5
70–100 (12)	0	0	–2	–2.0	–2	–2.0
Total (41)	31	23.3	–28	–20.1	+ 3	+3.2

* Excluding rural nurse-led SRAs

Table 13: Gains and losses of GP workforce by rural ranking score groupings of total SRAs

RRS of SRA* (No. of SRAs)	Gain GPs	Gain FTEs	Loss GPs	Loss FTEs	Net GPs 2002 (2001)	Net FTEs 2002 (2001)
35–45 (35)	24	19.8	–23	–16.6	+1 (+5)	+3.2 (-0.1)
50–65 (40)	36	26.1	–35	–26.6	+1 (-2)	–0.5 (-5.5)
70–100 (30)	4	2.6	–11	–10.4	–7 (+5)	–7.8 (+4.8)
Total (105)	64	48.5	–69	53.6	–5 (+8)	–5.1 (-0.8)

* Excluding rural nurse-led SRAs

Discussion

The slight gains in workforce of the previous year have been lost in 2002. The pattern continues to show practitioners happy to move to rural areas nearer to main centres, with a notable gain in the 35–45 rural ranking score bracket, but even greater losses of both GPs and FTEs in the more remote higher score areas. The North Island seems to have fared worse than the South Island.

The instigation of Reasonable Roster Funding and Workforce Retention Funding during 2002/03 might show a more favourable response in recruitment and a slower rate of turnover in the 2003 Workforce Survey, particularly in the higher rural ranking score localities.

Workforce turnover

With a total workforce of 477, this shows a 0.6% net decline in numbers, with a 13.4% gain versus a 14.0% loss (comprising 373 FTEs). The loss of FTEs was 0.7%. However, 12 practitioners moved from one rural area to another, making the true turnover rather less at a 10.9% gain and 11.9% loss of doctors. This compares with a 13.6% gain and 11.8% loss during 2001.

What seems to be a very small loss in the total and some slight slowing of turnover in the rural GP workforce is partly confounded by the greater total recorded workforce, due to the net addition of eight practices through 'discoveries' and reclassifications. Three practices ceased to have rural status (Beachlands, Ngunguru and Picton), representing 10 doctors less in the total workforce, but not a 'loss to rural'.

Of the doctors arriving, 26 commenced as part-timers and 38 as full-timers. There does seem to be a continuing trend towards part-time work, which is a good solution when the part-timers also participate in on-call rosters, but it puts a strain on roster arrangements when people only work daytime sessions and refuse roster participation. This is of most concern in the more remote areas such as Hawke's Bay and Taranaki, where small numbers of full-time doctors are still left to carry the after-hours load. However, with the general shortage of GPs available for rural work, they have had to accept what daytime help they can get.

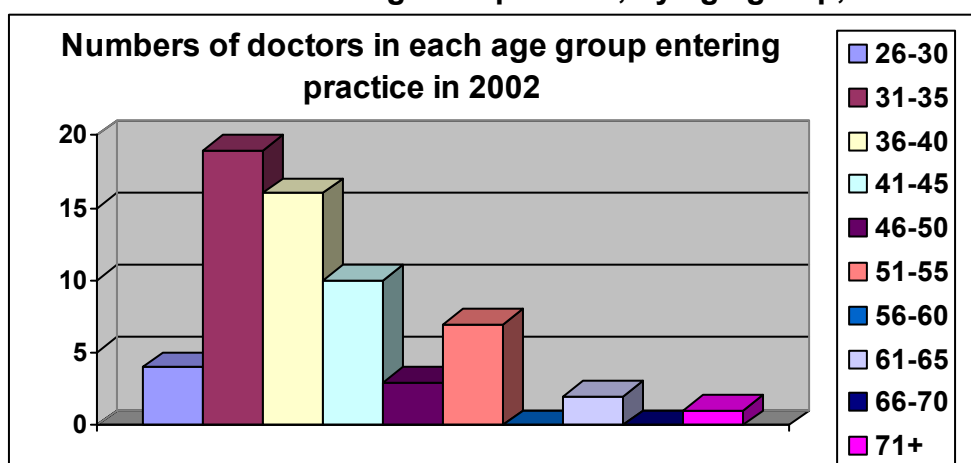
Profiles of recruits to, and losses from, rural practice.

We examined the age groups and length of service of rural doctors to explore their behaviour patterns and to aid predictions of future fluctuations. Table 14 and Figure 1 show the age groups from which rural GPs were recruited during 2002.

Table 14: Age of arriving GPs

Age range	26–30	31–35	36–40	41–45	46–50	51–55	56–60	61–65	66–70	71+
Number arriving	4	19	16	10	3	7	0	2	0	1

Figure 1: Number of GPs entering rural practice, by age group, 2002

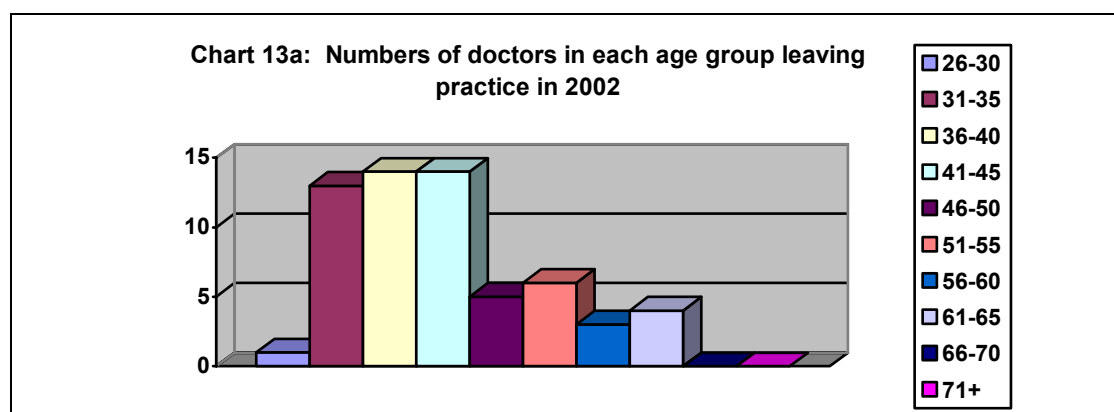


While we would expect that most of the recruits would come from the earlier stages of practitioners' careers, as is borne out by the data, there are still a notable number between 46 and 65 (just under 20% of the group) who are making the rural choice. This is interesting when set against the data of the age and length of service of those departing from rural practice, as shown in Table 15 and Figures 2 and 3.

Table 15: Age of departing GPs

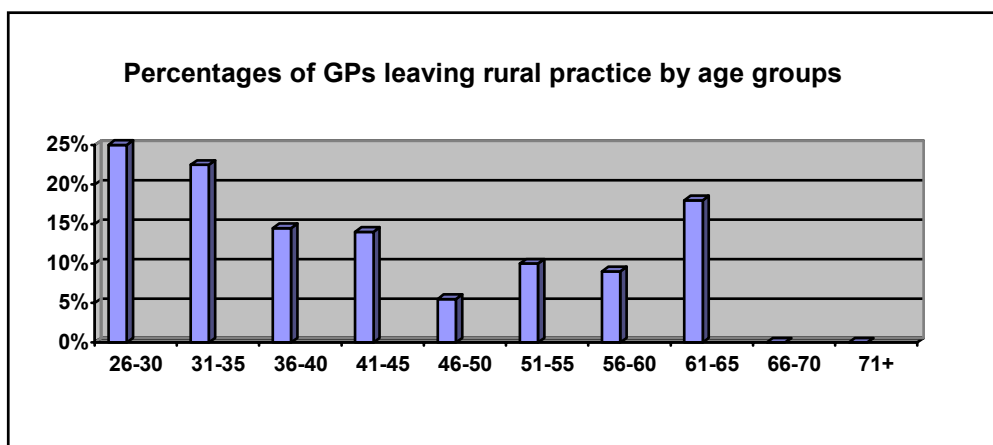
Age group	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71+
No. departing	1	13	14	14	5	6	3	4	0	0
Total w/force	4	58	97	100	88	59	34	22	10	5
% departing	25	22.5	14.5	14	5.5	10	9	18	0	0

Figure 2: Number of GPs leaving rural practice, by age group, 2002



It is still predominantly the younger doctors who are leaving, even when expressed as a percentage of the total number of doctors in the age group (see Figure 3).

Figure 3: Percentage of GPs leaving rural practice, by age group



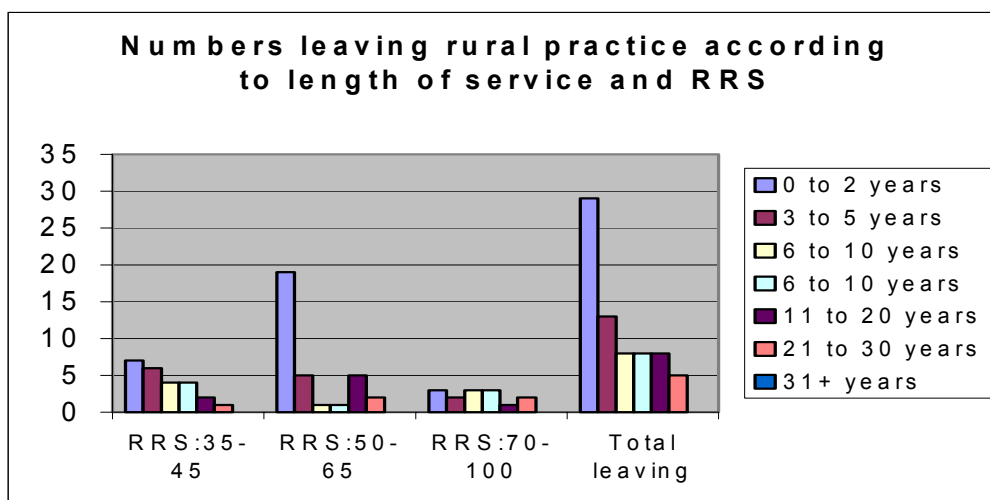
Length of service of departing GPs

This is again closely related to the length of time served by rural GPs (see Table 16 and Figure 4). The shorter the time a GP has spent in rural practice, the more likely they are to leave.. This probably represents a phenomenon of young practitioners going 'for a look', followed by a weeding-out process of those who find they don't enjoy rural practice. It offers a challenge to workforce planners to create a working environment that retains these younger GPs.

Table 16 : Number leaving rural practice, by length of service and RRS

Length of service (yrs)	RRS 35-45	RRS 50-65	RRS 70-100	Total leaving	Total w/f	% of w/f leaving
0-2	7	19	3	29	112	26%
3-5	6	5	2	13	72	18%
6-10	4	1	3	8	96	8.3%
11-20	2	5	1	8	125	6.4%
21-30	1	2	2	5	53	9.4%
31+	0	0	0	0	19	0%

Figure 4: Numbers leaving rural practice, by length of service and RRS



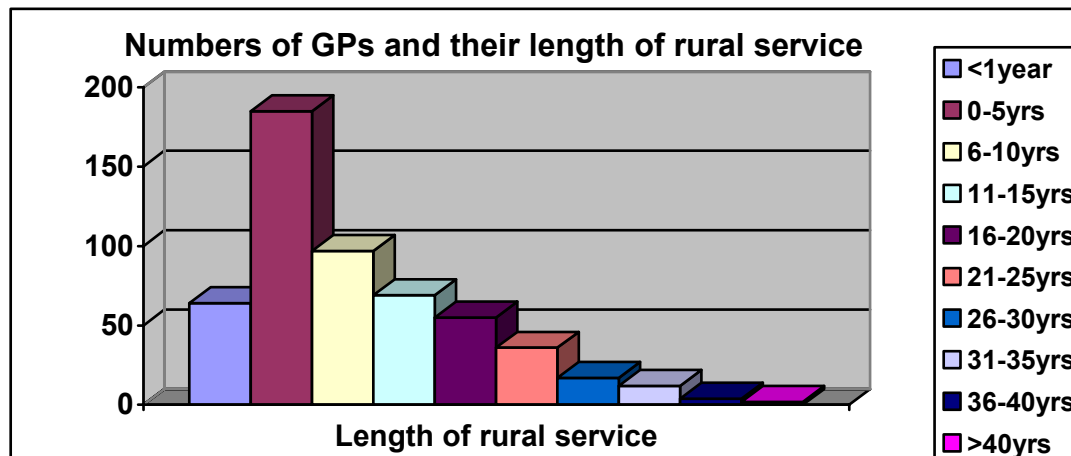
Length of service of current rural GP workforce

Table 17 and Figure 5 show the length of time GPs have remained in rural practices. If a term of service of over five years is considered the basis of a substantial contribution to rural services, and over 10 years evidence of effective retention, then it is reassuring to see that 284 of the 478 rural doctors (60%) meet these criteria: 183 (38%) have been present for over 10 years, and 73 (15%) for over 20 years.

Table 17: Length of service of GP workforce

Length of service (yrs)	No. GPs
(< 1)	(64)
0–5	184
6–10	96
11–15	69
16–20	56
21–25	36
26–30	17
31–35	13
36–40	4
> 40	2
Total	477

Figure 5: Number of GPs, by length of rural service



The fact that 179 GPs (37.5%) have been there for a shorter time (0–5 years) is a reflection of recruitment still being active. Note that of those 64 GPs only present for up to one year, while the majority are in the younger age groups (66% are in the 25–40-year range), recruitment is not confined to this group, with the rest choosing to commence rural practice in the latter part of their career.

These measurements have not been applied to previous workforce surveys, so no comparisons are available, but they form a baseline for future assessments of workforce retention programmes.

Practitioners' perceptions of workforce inadequacies and future needs

Each rural practice was asked the following questions.

If suitable practitioners were available with adequate funding to work alongside your existing workforce, how many Full Time Equivalent extra practitioners could you use?

Ninety-eight practices indicated a need for more staff, which amounted to 113 extra doctors, representing 98.3 FTEs. The inclusion of the phrase 'with adequate funding' was to avoid practices denying themselves extra help if they saw it as a threat to sustainable incomes. While it may envisage an ideal situation, it is a useful inclusion to provide information about situations where small or deprived communities only generate an income sufficient for a small number of doctors who carry either heavy workloads or demanding on-call rosters.

The introduction of Rural Workforce Retention and Reasonable Roster funding during 2002 may increase the possibility of filling these workforce gaps, or, in the smaller communities, may obviate the need for them if regular and affordable weekend locums can be sourced.

If suitable practitioners were available to replace any of your existing workforce who wish to leave, how many Full Time Equivalent practitioners would be able to start this year (2003)?

The question about workforce replacement complements the estimates of intentions to leave practice, while focusing on the immediate future rather than two- and five-year estimates. In response, 77 replacement GPs (representing 71.7 FTEs) would be welcomed in 58 practices. This compares to the previous year's annual turnover of between 60 and 70 practices.

As one indication of recruitment requirements, these numbers are consistent with previous estimates of 80–100 doctors short (National Centre for Rural Health 2001, 2002). That they are largely unchanged reflects the fact that during 2001 there was a gain of only eight GPs but a loss of 0.8 FTEs, and during 2002 a loss of three doctors or 3.2 FTEs. Not a lot has changed. Perhaps rural practice is 'holding its own'. It will be interesting to see the effect of the new initiatives and funding that began in 2002 on any future workforce survey.

Combining these figures it would seem that in 2003/04, 190 extra practitioners could be used if the funding were available. To see half of this number recruited would be a major achievement.

Practitioners' intentions to leave rural practice

Workforce planning rests heavily on knowing the intentions of existing rural practitioners, although stated intentions are inevitably going to be only an approximation (people don't always do what they say they will). There tends to be an underestimate, as many are reluctant to declare their plans due to the destabilising effect of this on their practice staff and patients. Some practitioners also make more precipitate decisions to leave than can be captured by the survey.

A possible overestimating influence may be due to current acute or chronic disgruntlement with work circumstances, which might be resolved as things change. This is a challenge for all who work for the betterment of rural health services.

According to the returns for 2002, 58 rural GPs indicated an intention to leave over the next two years. Their ages ranged from early 30s to 75. The spread is shown in Table 18 and Figure 6 below.

Table 18: Number and percentage of rural GPs leaving practice, by age group

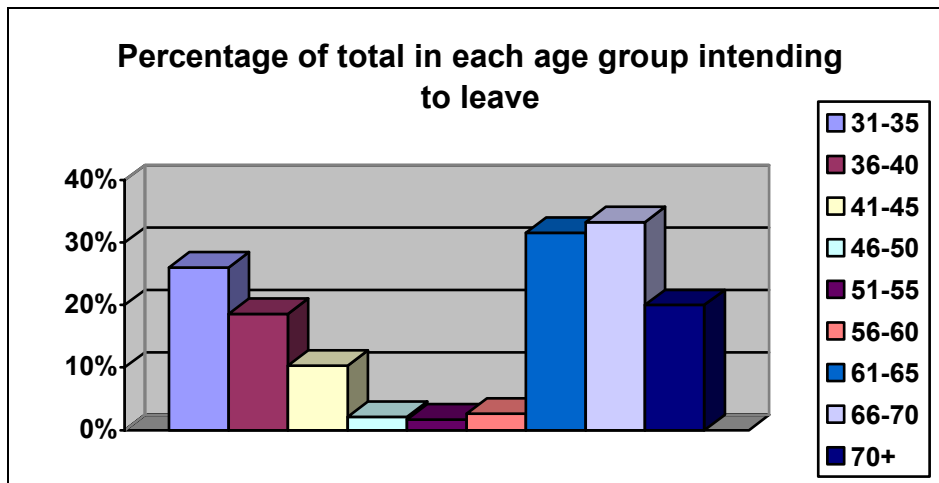
Age group (yrs)	No. leaving within 2 years	Total in age group	% total
31-35	13	50	26
36-40	18	97	18.6
41-45	10	97	10.3
46-50	2	95	2.1
51-55	1	58	1.7
56-60	1	38	2.6
61-65	6	19	31.6
66-70	4	12	33.3
71+	1	5	20

Figure 6: Number of GPs intending to leave rural practice within two years, by age group



The pattern may reflect the larger number in the younger age groups but the reluctance of younger GPs to remain in rural practice, which is still evident when those intending to leave are expressed as a percentage of the total in each age group (See Figure 7).

Figure 7: Percentage of GPs intending to leave rural practice within two years, by age group



It appears that if the age of rural practitioners is used as a measure of workforce stability, they fall into three groups:

- younger practitioners, 10–26% who see rural practice as a short-term commitment
- a middle bracket of 45–60-years-olds, who see themselves established and settled in rural practice
- the retirement age group (over 60-year-olds), a third of whom intend to leave.

Although the numbers are small, it is intriguing to see 80% of the over 70s intending to still be in practice in two years' time.

Of interest is the length of service of the doctors who leave. Of the 63 departing for whom we have data:

- 20 stayed for no more than one year
- 42 stayed no longer than five years (23% of the under six-year service)
- the most stable group stayed between 11 and 20 years (6.4% of this group left) followed by the 6–10-year group (8.3% left).

Short service of GPs is a possible predictor of an unstable SRA. Low age of doctors within an SRA may also be associated with instability, and offers an opportunity to DHBs or PHOs who have a young rural GP workforce to spend time exploring with them the factors that may influence their retention.

It will be of interest to DHBs to know the expected attrition and recruitment requirements for their districts. Early trends are shown by including figures for 2001 and 2002.

Table 19: Anticipated rural workforce attrition, by DHB

DHB	GPs leaving within 2 yrs				GPs leaving within 5 yrs				Totals				
	No.		FTE		No.		FTE		No.		FTE		
	'01	'02	'01	'02	'01	'02	'01	'02	'01	'02	(% w/f)	'01	'02
Northland	3	3	2.5	2.5	3	2	3.0	1.5	6	5	(7.9)	5.5	4.0
Waitemata	2	5	1.1	3.4		1		1.0	2	6	(26)	1.1	4.4
Auckland	1	2	1.0	1.2	3		2.2		4	2	(25)	3.2	1.2
Counties–Manukau	1	2	0.7	2.0		1		1.0	1	3	(25)	0.7	3.0
Waikato	7	7	4.8	4.8	3	4	2.6	3.3	10	11	(11.7)	7.4	8.1
Bay of Plenty	5	3	4.5	1.8		2		1.7	5	5	(25)	3.5	3.5
Gisbourne		4		3.1	2		1.1		2	4	(57)	1.1	3.1
Lakes					2	1	1.7	1.0	2	1	(50)	1.7	1.0
Hawke's Bay		3		2.7	2	2	2.0	2.0	2	5	(33)	2.0	4.7
Taranaki		1		1.0	2		2.0		2	1	(5.2)	2.0	1.0
Wanganui		1		1.0						1	(10)		1.0
Mid-Central		1		1.0	1	2	1.0	2.0	1	3	(20)	1.0	3.0
Wairarapa													
Nelson–Marlborough	2	3	1.6	1.5					2	3	(11.1)	1.6	1.5
West Coast	1	3	1.0	3.0					1	3	(25)	1.0	3.0
Canterbury	7	10	4.0	7.0	6	1	5.2	1.0	13	11	(28.2)	9.2	8.0
South Canterbury	2	1	2.0	1.0	2	2	1.5	1.7	4	3	(25)	3.5	2.7
Otago	5	7	3.7	5.3		1		1.0	5	8	(14.8)	3.7	6.3
Southland	2	1	1.3	1.0	2	1	2.0	0.6	4	2	(5.4)	3.3	1.6
Total	38	57	28.2	43.3	28	20	24.3	17.8	66	77	(16.1%)	52.5	61.1

Populations within SRAs and doctor:population ratios

The doctor:population ratio is significant from a number of perspectives, because it influences:

- the workload on the practitioner
- the quality of care possible
- the income of the practice
- the stability of workforce retention.

From the perspective of workload and what can reasonably be achieved in terms of quality of care, there are no definitive guidelines. *The Implementation of the Primary Health Care Strategy in Rural New Zealand*, states:

Doctor to patient ratios as high as 1:2000 should signal the need for DHBs and PHOs to take action to avoid safety issues arising for the provider. When referring to doctor-to-population ratios, the implication is that there is a practice team associated with the practitioner. Thus, responses to high doctor/patient ratios may include recruiting additional doctors or developing other members of the primary health care team to provide support. (Ministry of Health 2002)

The doctor:population ratio of each SRA are presented in Appendix D. Numbers under and over the 'alert level' of 1:2000 are presented in Table 20, for each DHB. This is the first year an objective estimate of SRA populations has been possible, so there are no robust comparisons to make with previous years.

Table 20: Doctor:population ratios above and below 1:2000, by DHB

DHB	No. SRAs with D:PR < 2000	No. SRAs with D:PR > 2000	Unclassified SRAs*
North Island			
Northland	8	2	
Waitemata	1	1	
Auckland	2	0	
Counties–Manukau	1	1	
Waikato	9	5	
Bay of Plenty	5	2	
Tairāwhiti	4	0	
Lakes	0	1	1
Hawke's Bay	4	0	
Taranaki	2	5	
Wanganui	2	2	
Mid-Central	0	4	
Wairarapa	0	1	
South Island			
Nelson–Marlborough	4	2	
West Coast	3	1	4
Canterbury	4	5	
South Canterbury	4	1	
Otago	11	0	
Southland	3	2	2
Total	67	35	7

* The unclassified SRAs are nurse-led services with no doctor present. The populations tend to be under 1000. Whataroa normally has a solo GP, but there was no incumbent at the time of the survey.

The emphasis on signalling DHBs and PHOs 'to take action' creates the potential for these figures to be misleading. Closer inquiry of an apparently overburdened SRA may reveal local factors that reduce the true workloads, such as 'dormitory small towns' where a significant sector of the population get most of their primary healthcare from the nearby urban centres where they work. When PHOs form, the ratios of GPs to *enrolled population* will be a more accurate indicator of workload.

A further breakdown of doctor:population ratios by geographical spread is shown in Table 21.

Table 21: Geographical spread of doctor:population ratios

D:PR ratio	N. Island	S. Island	Total
< 1400	11	12	23
1400–1800	12	13	25
1800–2200	24	6	30
2200–2600	7	3	10
2600–3000	3	1	4
> 3000	5	5	10
(Unclassified)	(1)	(6)	(7)
Total	63	46	109

Doctor:Population Ratio (D:PR)

Smaller populations may not be able to provide an economic base to sustain a service. If a population is below 1200, some form of subsidy may be required to sustain even a single practitioner. With populations within an SRA of between 1200 and 4000, there may not be a sufficient economic base for the numbers of practitioners required for reasonable on-call rosters. Here the temptation is for fewer doctors to struggle on with over-demanding and probably unsustainable rosters to maintain a financially viable practice.

Table 21 shows 14 practices with a doctor:population ratio less than 1:1200 (in addition to the very small nurse-led practices marked as unclassified for this exercise). In the South Island many of these practices (eg, Wanaka, Wakatipu, Cromwell) have compensatory large influxes of tourists, which maintains their viability. In others (eg, Karamea, Kurow), income supplements maintain viability. In the North Island, tourism is less of an influence in the low-ratio SRAs but may contribute in Raglan. Subsidised practices (eg, Chatham Islands) or trust-held contracts (Hokianga, Whangaroa, Te Puia Springs) account for practice viability. Kaikohe, with 6.4 FTEs, a doctor:population ratio of 1:1088 and high levels of deprivation (see below) seems to represent an exception to the usually observed effects.

An insufficient economic base also occurs in the context of deprived populations. A practice reliant on patient fees for viability will need to see far more patients to remain viable, and the consequent quality of care may be threatened. It should be noted that the impact of PHOs funded with access formula had yet to be felt for this 2002 survey.

This may in part account for the larger number of practices in the North Island with a high doctor:population ratio.. (see Table 21). Where they appear, as seen in the Appendix D, they represent known workforce shortages and challenges for recruitment (Taranaki, Foxton, Taihape). A notable outlier is Hikurangi, with a doctor:population ratio of 1:5199, based on the work of a single GP. This anomalous result is probably explained by large numbers of patients from within the SRA travelling to adjacent areas (particularly Whangarei) for their care, but still being caught up in the meshblock population count within the SRA.

Four of the five practices in the South Island where the doctor:population ratio exceeds 3000 were suffering workforce shortage at the time of the survey in spite of

an adequate population base. The fifth (Havelock, D:PR 1:3489) would seem to be under pressure, but local arrangements with three GPs contributing to the 1 FTE suggest there are compensating factors which support the practice's sustainability, as it has not emerged as a 'problem area'.

The unclassified SRAs have no doctor present. Apart from Whataroa on the West Coast, where there is a practice vacancy for a population of 1146 residents, the others are nurse-led SRAs whose populations are all less than 1000.

The influence of these factors is passed on to the overall stability of the workforce, which is discussed below.

On-call rosters

The Implementation of the Primary Health Care Strategy in Rural New Zealand, developed by a rural sector group as advice to the Ministry of Health, recognised that time spent on call was one of the critical factors affecting the sustainability of a rural practice. It specified that, except in a few exceptional circumstances, a roster busier than 1:4 is unacceptable when continued over a long period of time.

The statistics in Table 22 relate to weekend rosters. In many situations, weekday rosters are different, especially in smaller practices that use nearby larger centres for sharing weekend call. These practices typically will do a 1:1 or 1:2 call for weeknights, which tend to be reasonably quiet. In general the practitioner is likely to remain in the vicinity overnight during the week, while at weekends the ability to leave the district is more important. Therefore, in considering the impact on workforce retention, it would seem best to focus on the weekend roster.

The spread of weekend on-call rosters for rural practitioners (nurses and doctors) is summarised in Table 22, which shows the number of SRAs and the number of practitioners (in brackets) within each category. Table 22 is designed to show the spread fairly evenly over the categories. The contrast between the two islands again demonstrates their differences, whereby in the North there is a higher proportion of SRAs with several practices and practitioners sharing the workload and rosters, whereas in the South small, isolated practices predominate.

Table 22: Spread of weekend rosters worked by rural practitioners in their SRAs

Roster	1:1–1:2	1:3–1:4	1:5–1:6	1:7+	Total
	SRAs (prac)	SRAs (prac)	SRAs (prac)	SRAs (prac)	SRAs (prac)
N. Island	15.5 (24)	18 (77)	17.5 (127)	11 (44)	62 (272)
S. Island	19 (24)	14 (50)	7 (58)	6 (54)	46 (186)
Total	34.5 (48)	32 (127)	24.5 (185)	17 (98)	108 (458)

Practices (prac)

Note: The use of .5 in the tables relate to different practices in the same SRA having different rosters (eg, in the Bay of Islands, Russell works 1:2 while Kawakawa and Moerewa work 1:6).

Table 23 presents the proportion of SRAs and practitioners falling above and below the 1:4 level. The results show that 84 practitioners (17.5% of the rural workforce) were still subject to onerous rosters.

Table 23: Numbers of rural practitioners above and below the 1:4 acceptable limit of on-call commitment

Roster	1:1 – 1:3	1:4 +
	SRAs (prac)	SRAs (prac)
N. Island	21.5 (35)	40.5 (237)
S. Island	26 (49)	20 (137)
Total	47.5 (84)	60.5 (374)

Practices (prac)

Discussion

During the latter part of 2002 the first effects of the Reasonable Roster Funding, aimed at eliminating busier than 1:4 rosters, were just beginning to be felt. The way in which the 2002 survey was completed gives the impression that most practices answered *excluding* any recent changes to their roster arrangements, reflecting the situation during the bulk of the year. It will be important when carrying out any future survey to include an opportunity for the practices to comment on the effect on their rosters of the Reasonable Roster funding. We may expect that the impact of this initiative will show a significant decrease in the on-call rosters experienced, and in turn improved retention of the workforce.

Stability of shared roster areas

The interdependence of practitioners within SRAs means they form a good framework for evaluating workforce stability. It becomes possible to refer to an SRA as being stable, unstable or in crisis. This raises the question of what indicators of stability can be used to draw these conclusions.

The workforce surveys offer various parameters:

- previous turnover of practitioners
- current workforce adequacy with respect to:

- doctor:population ratios
- on-call requirements
- anticipated workforce attrition
- deprivation indices of localities
- attractiveness of the local environment
- personalities and relationships of current incumbents and provider organisations.

The first four items are measurable, even though doing so would be very time consuming. The last two are either difficult to quantify or unhelpful to state. They are also likely to be reflected in the measurable factors.

The following scales might be used to measure these parameters.

Previous turnover of practitioners

This requires measuring the number of arrivals and departures of practitioners per year (perhaps averaged over three years) as a percentage of the total workforce within the SRA.

Current workforce adequacy with respect to:

a) Practitioner:patient ratios

The *Implementation of the Primary Healthcare Strategy in Rural New Zealand* identifies 1:2000 as a level at which workforce overload should attract special attention. Tables 20 and 21 show the spread of ratios discussed in the previous section. Appendix D offers local details.

b) On-call requirements

Table 22 shows that 43% of SRAs, involving 17.5% of the workforce, still had rosters busier than 1:4. On-call duties have long been recognised as one of the crucial factors in retaining practitioners. These SRAs might therefore be considered to be unstable. However, the initiative of the Reasonable Roster Fund may help to diminish this influence provided it is possible to find practitioners willing to provide the weekend services. Rosters of 1:1, 1:2 and 1:3 that remain would offer a scale to provide a criterion for indicating instability.

Anticipated workforce attrition

The criteria that could be used are age group of practitioners, length of service of practitioners and stated intention to leave. As we have seen, those leaving rural practice come predominantly from particular age groups (Table 15 and Figures 2 and 3), and from those with relatively short or very long length of rural service (Table 16 and Figure 4). To apply these criteria to 109 SRAs would be very detailed and time consuming and is beyond the scope of this survey.

Deprivation indices of localities

The deprivation index is based on census data relating to meshblocks. There is no facility within NZ Dep 2001 to average deprivation across groups of meshblocks, as

found in SRAs. There has also been no formal assessment of whether workforce attrition in areas of high deprivation is necessarily increased.

Discussion

As has been noted above, while it is possible to generate an objective estimate of SRA workforce stability, it would be a time-consuming exercise, which is beyond the scope of the current contract. It would also be of questionable added practical (as opposed to academic) value, as rural localities and the DHBs responsible are aware of their problems based on currently available local information. It is offered as a research project should there be a source of funding for the purpose.

It may, however, be helpful for DHBs to use the criteria offered above to apply to the SRA in their own areas using their own up-to-date information. This would give them the opportunity to anticipate workforce needs by taking remedial action or planning a recruitment campaign.

CONCLUSIONS

The survey

The New Zealand Annual Rural Workforce Survey 2002 has gathered and collated a rich body of data, which can be used in a variety of ways by people and organisations involved with health workforce development and others from the rural sector interested in learning more about their locality or the national picture.

The increasingly comprehensive coverage of the survey should provide a baseline for future comparative surveys, even though some small inconsistencies and gaps remain. The vast amount of time involved in the project precluded looking in more detail at some aspects of the data. In particular, there is much more to be learned about the variety of ways in which rural nurses take part in front-line services, their demographic details and the patterns of their retention and recruitment.

The intention to create a national summary picture of the current stability or otherwise of all the SRAs was also abandoned when the scale of the task was appreciated. The parameters by which DHBs may choose to do the exercise in their own areas have been presented.

The workforce

The state of the rural primary care workforce remains a concern. While the percentage loss seems minimal, the continuing deficiency of around 100 full-time equivalent practitioners suggests that there are still too many practitioners with heavy workloads. The impact of additional Primary Health Care Strategy funding had not taken effect at the time of the survey, but may attract others to relieve the burden. Already it is evident that rural practitioners in these areas are changing their pattern of practice to devolve the after-hours work to regional centres. While this may make their lifestyles and working conditions more sustainable and keep their services in the community, it does represent a step down in locally available urgent after-hours medical care.

More optimistically, the extra Retention and Reasonable Roster Funding that has recently been introduced may well start to improve the reality, and then the image, of rural practice. Any gain in total workforce over the coming year in response to these initiatives might just stimulate recruitment, and lead us from the brink of a 'domino effect' of evacuation from rural practice in the harder hit areas, as highlighted in this survey.

Rural nursing

While the total rural GP workforce remains fairly static, there is a growth in the number of rural nurses carrying some of the clinical load. The number of nurses and nurse-led clinics on the database more than doubled, from 20 in nine locations to 41 in 20 locations. Most of these were already in existence during previous surveys but had not been identified. Practices using nurses to support GP rosters increased from 19 to 22, with an increase from 40 to 45 nurses involved.

With the further development of rural nursing education programmes, this pattern may continue and the rural primary health care teams of the future may experience further transformation. However, both nurses and doctors are adamant that the role of nurses with enhanced clinical skills remains *within* multidisciplinary teams rather than separate from them. The rural GP will still be needed as much as ever.

Future retention and recruitment

It is of interest and concern that those who leave rural practice are mainly the younger practitioners who have spent less time there. This is the ultimate challenge to rural health workforce planners when resourcing rural practices and communities to make them places where practitioners visit and stay, not visit and leave. If this resourcing involves improving rural capacity to readily accommodate rural-based clinical education, such investment can enhance both the reality of rural practice and young clinicians' exposure to it.

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**APPENDIX A: RURAL WORKFORCE SURVEY COVER
NOTE AND QUESTIONNAIRE**

Rural Practice Profiles - 2002

Dear Rural Practice

ANOTHER 10 MINUTES OF YOUR TIME ?

Last year you contributed to the Rural Workforce Practice profiles for the end of 2001. We finally reached 100% return, strengthening our previous data, which continues to feed directly into the rural health planning by rural support organisations and the Ministry of Health. At the end of 2001 there were:

- **113 rural shared roster areas**
- **207 practices with 35 points or more on the RRS**
- **310 full-time and 188 part-time** (averaging 0.4 FTE) GPs.

Total rural workforce of **c. 528** contributing **400 full-time equivalents** (if we estimate and add in those 8% non-returns).

During year 2001, **53 new GPs** entered rural practice and **48 departed**.

2002 saw the completion of the Rural Health Plan and the introduction of Rural Retention and Reasonable Roster Funding. Rural PHOs and other local initiatives are also being initiated. Workforce surveys help to show whether these and other changes are helping to restore the vibrant, sustainable rural health sector needed by rural communities.

We need now to adjust the Practice Profiles to the situation at the end of 2002 to bring our databases up to date and to evaluate the changes (the gains and losses) over the past year:

- **the numbers of rural practitioners**
- **the Full Time Equivalent workforce**
- **recruits and losses to the workforce**
- **a forecast about rural GP retirement**
- **where rural GPs come from**
- **where rural GPs go to**
- **numbers contributing to on-call rosters (i.e. GPs & PRIME trained nurses).**

We have recorded the information we have about your practice on the attached pages. **Please would you check it for accuracy, correct where appropriate and fill in whatever gaps there are for which you have information.** (PLEASE READ THE FORM CAREFULLY. WE HAVE TRIED TO MAKE IT AS CLEAR AS POSSIBLE.)

Please note: We need to know the situation **as at 31 December 2002.** (Changes after this date will come into next year's survey.)

(We appreciate the information on practitioners' age and anticipated retirement is potentially sensitive. If so, please leave it blank. If you are happy to communicate your intention to leave in a more discreet manner we'd like to hear from you.)

Thank you very much again for your participation in this important work.

With best wishes

Martin London

(Director, Rural Health Consultancy)

RURAL PRACTICE PROFILE

Please correct any inaccuracies and/or add to blank spaces on this page and answer the question, if appropriate

SECTION 1: Shared Roster Area (SRA)

SRA Name:	SRA Number:
Practice/s in Roster:	Prac.1 Prac.2 Prac.3 Prac.4 Prac.5

Question:

Have any practices in your shared roster area opened, closed or merged?

SECTION 2: This Practice

<u>PRACTICE NAME:</u>		
Address:		
Contacts:	Phone:	Fax:
	E-mail:	
On Call Roster:	Weekdays:	Weekends:
Rural Ranking Score:		
District Health Board:		

SECTION 3: Practice Workforce

DOCTORS: CURRENT MEDICAL WORKFORCE (31 Dec 2002)

Action: Please:

1. Check/correct names, add gender & ages* and show tenths worked.
2. Cross out any doctor who has left the practice and state year of departure and destination.

** We appreciate this may be sensitive. Precise ages if possible. ½ decade (eg, 41-45) will do.*

DOCTORS IN THIS PRACTICE:

Name	M/F	Age	Tenths	Yr Arr'd	Year Left	Destination
eg GP1 GP2 GP3 GP4 GP5 GP6						
Dr A	M	75	2	1950		

***Please mark * any GP intending to leave within 2 years.
Please mark ** any GP intending to leave within 5 years.***

NEW ARRIVALS IN 2002

Action: Please identify doctors who have joined the practice during 2002 intending to stay for at least 6 months, including their age, gender and the tenths they work:

Doctors Joined in 2002	M/F	Age	Tenths Working	Previous employment	Country

WORKFORCE SHORTAGE?

If suitable practitioners were available with adequate funding to work <u>alongside</u> your existing workforce, how many <u>Full Time Equivalent</u> extra practitioners could you use in your practice?	
If suitable practitioners were available to <u>replace</u> any of your existing workforce who wish to leave, how many <u>Full Time Equivalent</u> practitioners would be able to start this year (2003) in your practice?	

NURSES – see next page



RURAL NURSES PROVIDING 1ST ON-CALL SERVICES

This section identifies Rural Nurses who take part in 1st on-call rosters for Medical Emergencies.

(We are aware that rural nurses may be on-call for nursing duties but this is beyond the scope of this survey.)

ACTION:

1. Check the names, designations (rural nurses, practice nurses, district nurses, hospital nurses) and PRIME training* of the nurses who provide 1st on-call cover in your locality.
2. Describe how the nurses contribute to the roster.
3. Cross out the names of any who have left in 2002.
4. Add the names and details of nurses who have commenced a contribution to the roster during 2002.

PRACTICE:					
Nurses' names	Designation (RN/PNDN/HN?)	PRIME trained?		Contribution to 1 st call roster and source of medical back-up	
		Yes	No	Contribution	Back-up

***NOTE:** A PRIME trained nurse will have been through the 5-day PRIME training course on emergency care run by St Johns on behalf of ACC and the Ministry of Health

NURSE TRIAGE SERVICES

Does your practice use nurse triage services to support doctors on-call?

NO YES – Telephone Triage: *(Which service?.....)*
 – Personal Triage: *(Who provides it?.....)*

LAST QUICK PAGE!



SECTION 4: Other Features of the Service

Special Local Arrangements: *(please describe as appropriate and add any other comments – eg, long term locums in locality, etc.)*

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Please fax to 03 364 3632

or post to:

**Martin London
Rural Health Consultancy
St. Elmo Courts
PO Box 4345
CHRISTCHURCH**

APPENDIX B: LIST OF RURAL HEALTH WORKFORCE DATABASES HELD BY MINISTRY OF HEALTH

(These databases will only be released at the discretion of the Ministry of Health for *bona fide* research purposes.)

1. Rural Workforce GPs 2002.xls – includes: all practices (base), locations, SRA, DHB, statistics of numbers, age, gender, 10ths worked within the practice, numbers arrived and departed (with details), plus names and age, gender and 10ths worked of all GPs within practices.
2. SRA Analysis N.Is.xls – includes: SRA (base), DHB, rural ranking scores, on-call rosters, practice closures and mergers, populations of SRA, practitioner:population ratios; numbers, summated details, arrivals and departures of practitioners by SRA; rural nurse contributions and telephone and nurse triage.
3. SRA Analysis S.Is.xls – includes: SRA (base), DHB, rural ranking scores, on-call rosters, practice closures and mergers, populations of SRA, practitioner:population ratios; numbers, summated details, arrivals and departures of practitioners by SRA; rural nurse contributions and telephone and nurse triage.
4. GP Details.xls – includes: all rural GPs (base) with MCNZ number, gender, age, 10ths worked, years in rural practice, practice SRA and DHB.
5. GP Arrivals.xls – includes: GPs arrived in 2002 (base), age, gender, 10ths, years in rural practice, location, origin.
6. GP Departures.xls – includes: GPs departed during 2002 (base), age, gender, 10ths, years in rural practice, location, destination.
7. Intentions to leave – GPs.xls – includes: GPs intending to leave within two years (base), age, gender, 10ths, years in rural practice, location, rural ranking score, SRA, DHB.
8. Practice Details.xls – includes: practice name (base), location, SRA, DHB.
9. Nurse Contributions.xls – includes: practices using nurses for on-call (base), location, rural ranking score, SRA, DHB, nature of contributions, names of nurses, PRIME status and rosters.
10. Nurses Sharing Call.xls – includes practices (base), rural ranking score, location, SRA, DHB, numbers of nurses, PRIME status and rosters.
11. Telephone Triage Services.xls – includes: practices using telephone triage (base), rural ranking score, location, SRA, DHB, and triage service used.

12. Rural Hospital Triage Use.xls – includes: practices using hospital triage (base), rural ranking score, location, SRA, DHB and hospital used.

**APPENDIX C: GEOGRAPHIC INFORMATION SYSTEMS
MAPS OF SHARED ROSTER AREAS**

**GIS Atlas Of
New Zealand Rural Health Services**

(deleted from file)

North Island Shared Roster Areas

(deleted from file)

South Island Shared Roster Areas

**GIS Atlas Of
New Zealand Rural Health Services**

APPENDIX D: SRA POPULATIONS AND PRACTITIONER:POPULATION RATIOS

North Island SRA rural practitioner/population ratios

DHB	SRA name	SRA No.	RRS	Dr No.	FTE	Pop.	Pop/FTE
Northland	Kaitaia	1	55	7	7.0	17,757	2537
Northland	Whangaroa	3	55	4	3.6	3318	922
Northland	Kerikeri	4	45	8	6.0	9531	1589 *
Northland	Hokianga	5	60	6	6.0	5799	967
Northland	Kaikohe	6	50	7	6.4	6966	1088
Northland	Bay of Islands	7	50–75	9	6.1	11,238	1842 *
Northland	Hikurangi	9	60	1	1.0	5199	5199
Northland	Dargaville	10	45	10	8.7	10,545	1212
Northland	Ruakaka	11	55–70	3	3.0	5490	1830 *
Northland/ Waitemata	Lower Northland	12	55	8	6.6	10,638	1612
Auckland	Great Barrier Island	13	80–90	2	2.0	1146	1146 *
Waitemata	South Kaipara	14	40–50	14	10.6	22,677	2139
Waitemata	Warkworth	15	45	9	7.0	13,656	1951
Waikato	North Coromandel	16	80	4	2.4	3279	1366 *
Auckland	Waiheke Island	17	45–50	6	3.8	7230	1903 *
Counties– Manukau	Tuakau	18	45	5	4.2	7383	1758
Waikato	Tairua	19	65–85	8	4.7	8553	1820 *
Waikato	Whangamata	20	60	4	3.0	4728	1576 *
Bay of Plenty/ Waikato	Waihi/Katikati	21	40–50	11	9.5	17,316	1828 *
Counties– Manukau	Waiuku	22	40	7	5.4	14,172	2624
Waikato	North Waikato	23	40–60	7	7.0	14,487	2070
Waikato	Hauraki	24	45–60	6	5.6	13,725	2451 *
Waikato	Te Aroha	25	40	4	4.0	6462	1616
Waikato	Morrinsville	27	35	8	7.0	14,451	2064
Waikato	Raglan	28	35–60	5	4.0	4479	1120 *
Waikato	Matamata	29	35	6	6.0	11,826	1971
Waikato	Kawhia	30	80	1	1.0	1359	1359 *
Bay of Plenty	Rangataiki	31	35	4	2.4	6804	2835
Bay of Plenty	Kawerau	32	35	5	4.5	8724	1939
Bay of Plenty	Opotiki	33	40–75	5	3.7	8100	2189
Bay of Plenty	Te Wharau/Apanui	34	85	1	1.0	1578	1578
Tairāwhiti	Te Araroa	35	70–80	2	1.1	1458	1325
Tairāwhiti	Te Puia Springs	36	70–75	3	3.0	2376	792 *
Waikato	North King Country	37	50	4	4.0	8178	2045

(ctd)

North Island SRA rural practitioner/population ratios (ctd)

DHB	SRA name	SRA No.	RRS	Dr No.	FTE	Pop.	Pop/FTE
Waikato	South Waikato	38	35–60	15	13.5	25617	1898
Waikato	Te Kuiti	39	55	7	4.5	8727	1939
Lakes	Reporoa	40				1608	
Bay of Plenty	Murupara	41	75	3	2.3	4116	1790
Tairāwhiti	Waikohu	42	50	1	1.0	1923	1923
Tairāwhiti	Tolaga Bay	43	75	1	1.0	1437	1437
Waikato	Taumarunui	44	60	4	3.6	8217	2283
Lakes	Turangi	45	70	2	2.0	5232	2616 *
Hawke's Bay	Wairoa	46	55–60	6	5.2	8802	1693
Taranaki	Opunake/Okato	47	50–80	5	3.4	8445	2484
Taranaki	Inglewood	49	45	4	3.6	7080	1967
Taranaki	Stratford	50	40–45	6	6.0	8466	1411
Taranaki	Eltham	51	70	1	1.0	3693	3693
Taranaki	South Taranaki	52	55	1	1.0	2385	2385
Taranaki	Waverley	53	75	1	1.0	2070	2070
Wanganui	Waimarino	54	80	2	2.0	3657	1829 *
Wanganui	Waiouru	55	50	1	1.0	1941	1941
Wanganui	Taihape	56	75	1	1.0	3774	3774
Hawke's Bay	Waipawa	57	35	3	3.0	5937	1979
Hawke's Bay	Central Hawke's Bay	58	35–45	5	4.2	7410	1764
Wanganui	Rangitikei	59	35–45	6	5.5	14583	2651
Mid-Central	Southern Hawkes Bay	60	45–55	6	4.6	11,112	2416
Mid-Central	Foxton	61	55	1	1.0	6507	6507
Mid-Central	Southern Tararua	62	75	4	2.6	6309	2427
Wairarapa	Southern Wairarapa	63	35–50	8	7.2	14,682	2039
Hawke's Bay	Chatham Islands	117		1	1.0	714	714
Taranaki	Waimate Plains	118	80	1	1.0	3111	3111
Mid-Central	Otaki	119	35	4	4.0		
Bay of Plenty	Taneatua	120	55–60	2	1.7		
TOTAL				296	250.2	468,864	1874

South Island SRA rural practitioner/population ratios

DHB	SRA name	SRA No.	RRS	Dr No.	FTE	Pop.	Pop/FTE
Nelson–Marlborough	Golden Bay	64	70	4	3.7	5217	1410 *
Nelson–Marlborough	Motueka	65	40–45	13	7.6	13,113	1725 *
Nelson–Marlborough	Mapua	66	45	3	2	3051	1526 *
Nelson–Marlborough	Havelock	68	50	3	1	3489	3489 *
West Coast	Karamea	70	80	1	1	741	741
Nelson–Marlborough	Wakefield/ Tapawera	71	40	3	3	7125	2375
West Coast	Westport	72	40	6	6	7155	1193
Nelson–Marlborough	Murchison	73	35	1	1	1113	1113
West Coast	Reefton	74	90	1	1	2340	2340
Canterbury	Kaikoura Coast	75	60	3	3	3771	1257 *
West Coast	Moana/ Otira	76				933	
Canterbury	Amuri/Hanmer	77	70	3	1	3372	3372 *
Canterbury	Waipara/ Cheviot	78	55–80	6	4.3	7488	1741
West Coast	Hokitika	79	40–45	4	3.6	6147	1708
West Coast	Whataroa	81				1146	
Canterbury	Malvern	82	65	3	2.2	6786	3085
Canterbury	Oxford	83	60	1.5	1.2	3909	3257
West Coast	Fox Glacier	84				735	
Canterbury	Methven	85	50	3	2.5	5079	2032 *
Canterbury	Ellesmere	86	35	16.5	11.5	24,003	2087
Canterbury	Diamond Harbour	87	75	1	0.7	1581	1581 *
Canterbury	Akaroa	88	75	2	2	2316	1158
West Coast	Haast	89	?			396	
S. Canterbury	McKenzie Country	90	85	2	1.4	2001	1429 *
S. Canterbury	Fairlie	91	70	2	2	2625	1313
S. Canterbury	Temuka/ Geraldine	92	40–55	7	6.2	10,164	1639

(ctd)

South Island SRA rural practitioner/population ratios (ctd)

DHB	SRA name	SRA No.	RRS	Dr No,	FTE	Pop.	Pop/FTE
S. Canterbury	Pleasant Point	93	35	1	1	2781	2781
Otago	Wanaka	95	50–60	8	7	5235	748 *
Otago	Kurow	96	95	1	0.6	1143	1143
S. Canterbury	Waimate	97	60	3	3	5208	1736
Southland	Te Anau	98	65	3	2.3	4167	1818 *
Southland	Wakatipu Basin	99	55–60	18	10.9	14,118	1295 *
Otago	Cromwell	100	65	4	3.7	3576	966 *
Otago	Alexandra/ Clyde	101	55	8	7	7587	1084
Otago	Maniototo	102	90	1	1	1683	1683
Otago	Oamaru	103	40	14	13.5	17,250	1278
Otago	East Otago	104	65	3	2.4	4404	1835
Otago/ Southland	Gore	105	50–90	9	8.2	21,129	2577
Otago	Roxburgh	106	75	2	2	1851	925
Otago	Gt. Taieri	107	50	2	1.3	2292	1763
Otago	Milton/ Tuapeka	109	50–85	3	2.6	5055	1944
Southland	Western Southland	111	45–60	5	4.1	7587	1850
Southland	Central Southland	112	35	2	1.7	5532	3254
Otago	Balclutha	114	55–65	7	6.1	9111	1494
Southland	Tokanui	115				915	
Southland	Stewart Island	116				552	
Total				183	146.3	24,6747	1687