

New Zealand Rural After-Hours Primary Care Provider Survey:

1. The impact of oncall on providers and their families.

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**First of three reports from a survey commissioned by the New Zealand
Rural General Practice Network.**

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Executive Summary

Introduction

This is the first of three reports from a survey, commissioned by the New Zealand (NZ) RGPN and completed in August 2005, examining rural health practitioners' experiences of, and views about, providing rural primary care after-hours oncall. Web-based anonymous Internet questionnaires were used to survey general practitioners (GPs) and nurses providing first contact primary care after-hours oncall services in rural NZ. This paper examines how rural oncall impacts on the providers themselves, and their families.

Summary of results

Eighty-one GPs and seventeen nurses, who provide first contact rural primary care after-hours services, completed anonymous Internet questionnaires. Nurses and GPs described similar positive and negative aspects of providing after-hours care. The two main positive aspects were that the work was both challenging (requiring an emergency skill set) and rewarding (rural communities were truly appreciative of this essential service). The many negative aspects included the psychological stress of having to be immediately available for extended periods (overnight and weekends), sleep deprivation from callouts, and the reduced ability to plan and attend family events. Family members also have their sleep interrupted from nighttime phone calls, and must sometimes cope with an irritable parent or partner. For the providers, these negative aspects became more

difficult to cope with, as they got older. The minimal (if any) income derived from after-hours work was seen as undervaluing this essential emergency service. Many respondents commented that after-hours oncall was a major barrier to recruiting both permanent staff and locums, and the main reason they were contemplating leaving rural practice.

Conclusions

After-hours oncall in rural areas is a significant burden on those providing this important service, and impacts negatively on them and their families. The oncall workload is a barrier to recruitment, and a major reason providers leave rural practice. Despite being an essential service, it is remunerated very poorly in relation to the daytime work that nurses and GPs provide. Finding solutions to this one key rural issue (oncall workload) would be a significant step to improving both the retention and recruitment of rural nurses and doctors in New Zealand.

Introduction

Rural GPs in NZ work more hours per week, on average, than urban GPs, due principally to their after-hours oncall work. (1) After-hours oncall workload was clearly identified as a major issue by NZ rural GPs in 1999. (2) An Australian study concluded that oncall arrangements were “overwhelmingly” the most important factor determining GP retention in rural and remote areas. (3)

In 2001, the NZ Rural General Practice Network produced specific recommendations for recruiting and retaining a skilled primary care rural workforce, and these included recommendations about oncall workload. (4) Since in office, the Labour Government has made a significant investment in rural health, with specific initiatives to address rural workforce issues. These initiatives have included Reasonable Roster Funding, Rural Workforce Retention Funding and the PRIME scheme, in addition to the already established Rural Bonus scheme.

Reasonable Roster Funding was available to those rural GPs doing ‘1 in 1’ or ‘1 in 2’ oncall, to enable them to add providers to the roster and thereby reduce the oncall workload of each individual. Rural Workforce Retention Funding was designed to be a flexible resource to enable District Health Boards (DHBs) and Primary Healthcare Organisations (PHOs) to address specific rural workforce issues. The PRIME scheme has enabled better training, support and funding of rural providers responding to emergencies in the community. Despite this additional funding, excessive after-hours workloads continue to be an ongoing rural problem.

Primary care after-hours provision became an urban issue in 2004 when some after-hours centres started closing between 10pm and 8am, stating it was uneconomic to provide services during these hours. Their closure put added stress on hospital emergency departments. Historically, GPs have been unable to simply walk away from after-hours care, as their Section 51 funding agreement (5) required GPs to ensure their patients had access to after-hours primary care. They could provide the care themselves or they could arrange for it to be provided some other way, but the responsibility clearly rested with the GP to ensure it was provided. The ability to reduce the frequency of your after-hours oncall, or to have others cover your oncall entirely, was more easily arranged in urban areas, especially with the establishment of large after-hours GP rosters, specialised after-hours centres, and Accident & Medical clinics. In most rural areas, the after-hours model has been all the local GPs sharing an oncall roster. In rural areas without GPs, rural nurses provide the oncall service.

It has always been uneconomic to provide after-hours care in rural areas, but it was the urban after-hours problem in 2004 that prompted the Ministry of Health to establish the After-hours Primary Health Care Working Party in December 2004. The purpose of this project was *“to develop and recommend a national policy framework as it relates to after-hours primary health care that: provides clarity to practitioners, PHOs, DHBs and the Ministry of Health about their respective responsibilities for the provision of after-hours primary health care; and creates an environment that promotes locally developed solutions to*

the provision of services overnight.” (6) The working party produced its report in July 2005 (6) and the Ministry of Health released it for comment in October 2005.

The New Zealand Rural General Practice Network (the ‘Network’) is keenly interested in the issue of after-hours primary care, specifically as it relates to defining responsibilities for provision, and promoting locally developed sustainable solutions. In addition to providing the Ministry of Health with a written submission on the After-hours Report, (7) the Network also wanted to obtain accurate, current information on locally developed solutions being used to reduce oncall workloads, and how providing after-hours primary health care was impacting on the rural workforce. The Network therefore commissioned a qualitative Internet-based survey of rural after-hours primary care providers, both nurses and GPs.

Methods

The Survey

Invitations to complete an anonymous Internet-based survey were sent to all NZ rural GPs in July 2005. The two-part survey requested self-reported information about individual demographics (six tick box questions) and provision of after-hours care (seven open-ended questions). Invitations to complete a separate anonymous Internet-based survey were sent to rural nurses known to be providing first contact after-hours primary health care. The nurse survey was identical to the GP survey except for one less demographic question (Rural Ranking Scale score, which applied only to GPs) and one additional open-ended question asking nurses how they were paid for providing after hours care. The surveys were reviewed by a group of rural nurses and GPs, and feedback used to improve the final versions, which were then endorsed by the Network Executive.

Data Collection and Analysis

The Network, using its database of rural providers, invited all rural GPs, as well as rural nurses known to be providing first contact after-hours primary care, to complete the respective surveys. A 'rural' GP is defined by a score of 35 points or greater on the Rural Ranking Scale. (5) A total of 81 rural GPs and 17 rural nurses completed the Internet-based GP and nurse after-hours surveys, respectively.

The demographic data of rural nurses and GPs was summarized as percentages. The transcripts of the typed responses were read and reread by the author, using an immersion/crystallization framework. (8) Intuitive crystallizations emerged from repeated reflections on the data, which led to reportable interpretations. Identifying names of clinics, towns, cities and districts have been removed and replaced with either 'urban' (in brackets) for provincial or larger cities, or 'rural' (in brackets) for localities in which rural nurses and rural GPs work.

This paper reports the themes and sub-themes emerging from the question:

Would you give us examples of how being oncall for after-hours care has affected you and/or your family (positively or negatively)? How does having to provide oncall after-hours care influence your future career planning and how long you plan to stay in your present position?

Results

A total of 81 rural GPs and 17 rural nurses completed the Internet-based GP and nurse after-hours surveys, respectively.

Demographic Characteristics

The following tables compare the demographic data of the 81 rural GPs and 17 rural nurses who completed the surveys.

Table 1 shows the gender percentages for respondents, with GPs being predominantly male, and rural nurses being predominantly female.

Table 2 shows that for both health professions, more than 92% of respondents were over 35 years old.

Table 3: While there were GP respondents from all 5 regions, the majority of nurse respondents were from the 'Upper South Island' region (West Coast, Nelson-Marlborough, and Canterbury District Health Boards [DHBs]), with none from the 'Central' region.

Table 4 shows the distribution of GP Rural Ranking Scale scores, with the highest percentage of GPs scoring in the 55-60 points bracket.

	GP		Nurse	
	n	%	n	%
Table 1. What is your gender?				
Female	13	16%	13	76.5%
Male	68	84%	4	23.5%
Total	81		17	
Table 2. How old are you (in years)?				
34 or younger	6	7.4%	1	5.9%
35 - 44	22	27.2%	3	17.6%
45 - 54	31	38.3%	8	47.1%
55 - 64	20	24.7%	5	29.4%
65 or older	2	2.5%	0	0%
Total	81		17	

Table 3. In which region (District Health Board group) do you work?

Northern	18	22.2%	2	11.8%
Midland	26	32.1%	1	5.9%
Central	11	13.6%	0	0%
Upper South Island	12	14.8%	10	58.8%
Lower South Island	14	17.3%	4	23.5%
Total	81		17	

Northern = Auckland, Counties Manukau, Waitemata, Northland.

Midland = Waikato, Lakes, Bay of Plenty, Taranaki, Tairāwhiti.

Central = Hawkes Bay, Wairarapa, MidCentral, Hutt, Capital & Coast.

Upper South Island = West Coast, Nelson-Marlborough, Canterbury.

Lower South Island = Southland, Otago, South Canterbury.

Table 4. What is your Rural Ranking Scale score?

35/40	18	22.2%
45/50	18	22.2%
55/60	26	32.1%
65/70	9	11.1%
75/80	3	3.7%
85/90	5	6.2%
95/100	2	2.5%
Total	81	

Table 5. How frequently are you oncall?

1 in 1	4	4.9%	5	29.4%
1 in 2	7	8.6%	7	41.2%
1 in 3	18	22.2%	1	5.9%
1 in 4	6	7.4%	3	17.6%
1 in 5	15	18.5%	0	0%
1 in 6	19	23.5%	1	5.9%
1 in 7	3	3.7%	0	0%
1 in 8	3	3.70%	0	0%
1 in 9 (or less)	6	7.40%	0	0%
Total	81		17	

Table 6. For how many years have you been providing after-hours oncall services?

2 or less	9	11.2%	5	29.4%
3 to 5	10	12.5%	5	29.4%
6 to 9	7	8.8%	2	11.8%
10 or more	54	67.5%	5	29.4%
Total Respondents	80		17	

Table 5 shows the distribution of oncall frequency, with 71.6% of rural nurses doing '1 in 1' or '1 in 2' oncall, compared to only 13.5% of rural GPs, although the absolute numbers are similar (11 GPs, 12 nurses).

Table 6 shows that more than two thirds (67.5%) of rural GPs had been providing oncall services for greater than 10 years, compared to 29.4% of rural nurses.

Impacts of after-hours oncall

Positive impacts on GPs

Although some GPs commented that there was nothing positive about being oncall, a number of GPs did mention positives aspects.

- Family

One female GP mentioned that her after-hours oncall meant her husband and children had a closer relationship.

D34. *"My husband has opted to reduce his farming workload so he has been more available for the children over the past 9 years. The kids have benefited from having a closer relationship with him as he has taken over the school and after-school activities when previously I have done this."*

Another female GP said that it taught her kids responsibility .

D39. *"The positive effect of course is the satisfaction you get from providing the service and setting a good example to your family in shouldering your responsibilities. It teaches the family to be supportive and pick up when I leave in the middle of cooking, etc."*

And another said she brought her kids with her on simple callouts, to educate both them and the patients.

D41. *"For simpler 'call ins' I bring my kids - they get to understand why I need to go and the patients realise I have a life and learn to respect that."*

- Income

A female GP commented that she used the money earned from being oncall to improve family time.

D41. *"We use the money I get from after-hours cover for a cleaner, and holidays to really enjoy our family time."*

- Challenge

Many rural GPs mentioned the enjoyment and satisfaction of dealing with challenging and important emergency situations that were more likely to arise outside of the usual daytime office hours.

D9. *"For myself, the positive aspects are huge; experience, satisfaction, intensity, learning, working with other members of the community in 'unusual' circumstances, building goodwill/trust, empty roads & sunrises."*

D11. *"Positive note - I find emergency medicine stimulating and appreciate the ability to help people in a real emergency but, I would prefer to be able to have time off afterwards to recover from late nights."*

D41. *"My birthday dinner was interrupted by delivering and resuscitating a 29 weeker, immediately followed by an unsuccessful cardiac arrest for an elderly man - real circle of life stuff - extremely rewarding work."*

- Community

A number commented on how their patients and communities appreciated this essential service, and it enabled them as health practitioners to provide better continuity of care.

D6. *"The positive side is that most people appreciate the call commitment nowadays, and some of my best times in general practice have been saving lives or offering support in major crises, which are largely out of hours."*

D67. *"There have been lots of positive experiences working-wise after-hours, with very few negative ones. Local people appreciate the after-hours work."*

D69. *"I regard it as an important part of continuity of care, which should not be discarded nor regarded as anything less than a vital and unavoidable aspect of the job of a GP."*

Negative impacts on GPs

Virtually everyone commented on the negative aspects.

D36. *"After-hours is the bit that hurts us, disrupted family life, sleep deprivation, jadedness - I've just done a weekend so I am acutely aware of this."*

D40. *"I love my job as a rural GP but would give up call immediately if I was able. I can think of no positive experiences from being oncall but plenty of negative ones."*

Being oncall is a significant responsibility and time commitment that takes providers away from other important activities related to them and their families.

- Self care

The oncall workload reduced the time available for self-care, including personal hobbies and fitness.

D2. *"I went into rural GP knowing I would be oncall, and that family life and non-medical interests would suffer - they did!"*

D45. *"It restricts the little leisure time I have."*

- Sleep deprivation

The issue of sleep deprivation while oncall and its impact on clinical safety was repeatedly mentioned. People described being 'exhausted', 'stuffed' and 'depressed', and talked about the psychological burden of oncall.

D1. *"I have been utterly exhausted on numerous occasions after a 12 day session of continuous work, including 4+ nights oncall."*

D32. *"Being oncall carries a psychological burden, which is prolonged during weekends. I'm tied to the phone (which the rest of the family cannot use for long) and tend to be more irritable and tense. And the family - with young children - cannot go anywhere on the weekends. Lost sleep is inevitable, which doesn't help emotional wellbeing. If the oncall burden was too great, I'd move elsewhere where it was lighter."*

D60. *"Looking back, almost all complaints about my communication and treatment have arisen from times when I've been exhausted due to long oncall hours."*

- Stress:

Simply being oncall was stressful for certain individuals; knowing you could be called out at any moment to a life-threatening situation with little additional assistance. People described the personal psychological effects that providing oncall has had on them.

D53. *"Was being covered by 2-3 GPs but one has left after >10 years because of frustration over funding and after-hours arrangements - other has had time off on two occasions due to depression/stress and is now moving on to an urban practice."*

D9. *"For myself, the negative aspects are stress, anxiety, tiredness, anger, self doubt, isolation (who to share the negative stuff with), not being there on Xmas morning for my kids - BUT HEY, that's the choice! 'Get out of the kitchen'."*

- Older GP

Those closer to retirement talked about how it was getting harder to do oncall, as they got older.

D5. *"Being stuffed after a weekend oncall. As I get older it takes longer to recover (IE. now 2-3 days after a heavy weekend). This means a grumpy spouse and husband, as well as a tired and irritable doctor."*

D48. *"As a fairly old GP I am used to being oncall, and accept the hardships, but as I age, it is getting harder to cope on the day after an overnight call, when I have been out of bed 1 or 2 times."*

- Difficulty finding locums

Oncall was seen as a barrier to arranging locums.

D7. *"I have to work very hard to find locums to get 3 weeks leave a year - would love 4 weeks and dream of one day taking 6 weeks off to go overseas."*

D64. *"When workload is high, I am buggered all the time. Would be easier to cope if could get holidays when I want them, instead of being dictated by the availability of locums, or covering each other - more buggered."*

D72. *"the almost insurmountable barrier oncall presents to obtaining any locum cover - few locums are interested in any oncall."*

- Families

Many GPs described how oncall prevented them from attending family activities, and put a heavy burden on their spouse and children.

D10. *"Negatively: have missed children growing up, children think it is normal just to see me every morning for 10 mins and then don't expect me to come back at night. Also, they can't understand why I prioritise other people above them. No history in our family of sitting down to an evening family meal, only do this when on holiday."*

D14. *"I am near the end of my career. I have had very little quality family life ever. I'll miss medicine when I retire but not the oncall."*

D30. *"It is just another nail in the coffin in terms of trying to have an adequate family life. I try really hard to work around it, but it impacts hugely - when the kids were little we would have to employ a sitter for weekends if my wife had to take one of the kids off to a sport weekend - the sitter sometimes got paid more than I earned! I'm getting very close to having had enough."*

D39. *"Being oncall after-hours impacts very negatively on family life. Many times I have missed out on children's after school activities, social events and sport. I have not been able to attend functions that my husband is involved in. I personally have had to miss several events I would have loved to attend. It has made me tired and grumpy with myself, family and friends, especially when I have been disturbed several times in the night, or when patients have disturbed me without good reason."*

D66. *"Stress on the family, especially spouse, although my youngest child made the comment to me when he was 4 that he wished I was a farmer, so I wouldn't have to go out at nights/weekends!!."*

D75. *"Oncall is a huge imposition on families and takes us away heaps from families and makes us unable to participate in lots of activities. Call will drive me out of rural practice."*

- Poor income

Working hard in challenging oncall situations, yet receiving minimal if any payment for the work, led a number of GPs to feel undervalued and demoralised. Income was also an issue for GPs trying to arrange locums for time off. Locums now insist on being paid for oncall work, and their payment (in the order of \$300/night oncall) is significantly more than the majority of rural GPs earn when they do the same work. To afford a locum, some rural GPs shuffle their oncall schedules so that the locum doesn't have to do any oncall.

D40. *"Demoralising to work in environment where after-hours services are not adequately remunerated, recognised, nor appreciated."*

D79. *"I have to re-jig scheduling for holidays and locums, as no locum in a rural practice wants to do a weekend oncall without large amounts of blood money. So I work more before and after a resting holiday."*

- Future career planning

Many talked about being close to leaving their practice: either by retiring (a number mentioned early retirement) or switching to locums or urban practice, principally to avoid the oncall.

D6. *"Most of it is negative. I am planning to exit general practice as soon as I can, mostly because of the call."*

D10. *"Future career: if possible, would leap at a job without oncall. Present position: when children leave for Uni or big OE, I am off, either other job or locums."*

D11. *"Career move - I do not see me staying in rural medicine more than another two years (when my youngest child finishes College). Then I will opt for a quieter life with oncall being able to be paid as shifts."*

D18. *"1 in 3 is soul destroying, especially the weekends, weeknights are usually lighter. Have done this for 2 years now - was 1 in 4 before this for about 3 years. Ability to cope less as get older - can't cope so well with interrupted sleep, days are busier because of increased paperwork associated with daytime general practice. Patents are more demanding now out of hours. Physically stuffed, mentally stale, do not want to leave job however, think another year at maximum is all I can survive this."*

D26. *"I am planning to go to half time in my present position. That is entirely because of weekend oncall, and the disruption it causes to me, and my family. In the long term I am always thinking about alternative jobs, which don't involve oncall."*

Positive impacts on nurses

Similar to the doctors, only a few nurses commented positively about oncall work.

N5. *"I am in the twilight of my nursing career but am very much of the opinion that this rural work is also THE best time for me."*

N18. *"Positively, I enjoy the variety of work and that most callouts mean dealing with families on a one to one basis."*

Negative impacts on nurses

Most nurses mentioned some negative aspect(s) of being oncall, with some comments being remarkably similar to those of the GPs.

N1. *"Little or no sleep. Oncall from 11pm until 3pm the next day, on shift at the hospital from 3pm until 11pm then back oncall again. This equals no life!!!!!"*

N2. *"Being oncall is having a negative effect on my family relationships. If I am stressed, so is the family. It is often difficult to rest appropriately while oncall. Currently most of the call is on days when I am rostered to work a shift, so it is hard to get a break from 'work'. I am seriously considering changing my job in the short term future in order to get rid of my oncall responsibilities."*

N11. *"Being oncall has limited social and recreational activities. The oncall hours will reduce the time I stay in my present position."*

N13. *"Oncall affects the marriage greatly, being tired and grumpy is not the secret to a happy marriage. I would leave this situation tomorrow."*

N18. *"Main difficulty being unable to attend important family occasions. Always having to answer the telephone & be interrupted during meals, family discussions. Not being able to spontaneously decide to do something on a weekend - time off needs planning."*

N19. *"It has been very difficult in the past to get locums for holidays, etc, and to attract colleagues to share the practice. There has also been quite a personal toll of stress and family pressures."*

Discussion

This is the first NZ national survey of GPs and nurses providing rural after-hours primary care. The positive and negative aspects to providing rural after-hours services were remarkably similar for both rural nurses and GPs. The main positive aspects were that the emergency work was challenging and rewarding, and that after-hours care was a valuable service, which their rural communities appreciated. Negative aspects included long hours, sleep deprivation, poor pay

and psychological stress associated with being oncall. These factors not only impacted on the providers, but also affected their families, who, in effect, were oncall as well. For many, these negative aspects became more difficult to cope with as they got older. The poor remuneration for after-hours work was seen as significantly undervaluing their role as providers of an essential emergency service. These negative aspects of oncall were the main reason for considering leaving rural practice. These positive and negative aspects of rural oncall have been previously noted for NZ, (2, 9), Irish (10) and Australian (11) GPs, but this study shows that the issues are also similar for NZ rural nurses doing primary care oncall.

Historically, the Section 51 funding agreement (5) has required GPs to ensure their patients have access to after-hours primary care. They could provide the care themselves or they could arrange for it to be provided some other way, but the responsibility clearly rested with the GP to ensure it was provided. The ability to reduce the frequency of your after-hours oncall, or to have others cover your oncall entirely, was more easily arranged in urban areas, especially with the establishment of after-hours centres and Accident & Medical clinics. Additionally, many of the urban poor simply attend hospital emergency departments, where they can access Government-funded health care without being charged a co-payment. The current debate on after-hours provision in primary care was stimulated in large part by urban after-hours centres closing their doors between 10pm and 8am, stating it was uneconomic to provide services during these

hours. The fact that it has always been uneconomic to provide after-hours care in rural areas is only now being acknowledged.

Heavy hospital oncall rosters have been shown to affect performance to a level similar to mild alcohol intoxication, (12) which suggests that sleep-deprived rural providers doing frequent oncall may at times be clinically unsafe. Within NZ, DHBs have taken steps over the last few years to reduce the oncall workload of house surgeons and registrars, although it is unclear whether they have done this voluntarily to improve clinical safety or because the Resident Doctors Association has successfully negotiated for better working conditions. Providing mandatory limits to the hours of work of hospital doctors in training improves their quality of life. (13) Having achieved paid oncall shifts in base hospitals; young doctors see the rural oncall model, of working an entire weekend for minimal pay, as unacceptable. It is now time for DHBs to apply the hospital oncall standards to the rural nurses and GPs within their districts, to ensure they too have reasonable, clinically safe, oncall workloads, as well as sustainable lifestyles.

Respondents commented that after-hours oncall was the major barrier to recruiting young graduates, was the main factor causing experienced rural providers to consider leaving, and was making it difficult to source locums. Therefore, there is an urgent need for DHBs (and PHOs) to find new models of providing rural after-hours care, if their rural communities are going to have sustainable health services.

Further papers from this survey will examine rural GP and nurse experiences of, and views about, PRIME (Primary Response in Medical

Emergencies) and actual and potential solutions to improving rural after-hours working conditions.

Strengths and limitations

Only 81 of the approximately 450 rural GPs in NZ responded to the survey. However, this is not problematic given the qualitative nature of the survey. It is not the response rate that matters, but rather the richness of the responses and insights that were provided in response to the various questions. Similarly, while only 17 rural nurses took part in the survey, they too provided a wealth of responses. Rural GPs have been studied extensively in NZ (2, 9, 14-19) and the Network has an accurate GP database. However, rural nurses providing first contact primary care oncall have not been previously studied, and exact numbers are not known.

Although respondents were not purposively selected, there were sufficient numbers of both GPs and nurses to provide clear insights into the issues of providing rural after-hours services. Direct quotations have been included to enhance the trustworthiness of the study.

By using an Internet website for this survey, the small number of rural providers without easy access to the Internet (18, 19) would have had difficulty participating. Additionally, having to provide a typed response to the qualitative questions would have been a barrier to those with minimal typing skills, who may have chosen not to participate or to shorten their responses. A final limitation is

that since this mid-2005 survey, further *ad hoc* changes may have occurred in rural primary care after-hours provision.

Conclusion

The comments of nurses and GPs in this survey, about the impact of providing rural after-hours oncall on themselves and their families, had many similarities. While providing after-hours oncall in many rural areas had positive aspects, overall it was stressful, sleep depriving, poorly paid work that impacted negatively on themselves and their families. Oncall workload was seen as a major barrier to retention, recruitment and attracting locums. Despite being an essential emergency service requiring additional knowledge and emergency skills, rural oncall was very poorly remunerated in relation to the daytime work that nurses and GPs provided. Many of the respondents commented that they were considering leaving rural practice because of the stress of being oncall. By adequately addressing this one significant rural issue (oncall workload), it may be possible for DHBs to improve both the retention and recruitment of rural nurses and doctors within their districts.

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