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Important new empirical evidence to guide rural health workforce retention policies



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Centre for Remote Health
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Background to the rural health workforce problem

What we know:

- Persisting geographical maldistribution
- Optimising RETENTION of rural and remote PHC workers is critical

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Where are the rural retention research gaps?

What we don't know:

- Scant baseline turnover & retention stats
 - Do some groups stay longer?
 - How much longer?
 - What factors are most strongly associated with retention?

Methods

Synthesis of main empirical evidence from 4 quantitative studies measuring actual retention

- Rural Health Workforce Agency GP data (2008)
- Wave 1 of MABEL GP data (2008)
- NSW Rural Doctors Network GP data (2003-2012)
- Victorian rural Allied Health Professionals (2004-2009)
- Rural and remote Nurses, Doctors, Aboriginal health workers, Allied health professionals, and Health service managers (2003-2009)

Methods

Multiple linear regression modelling

- Outcome measure = $\ln(\text{Length of stay in current position})$

Survival (time to event) analysis

- Time commences = uptake of rural position
- Event = leaving rural community/health service
- Censored = remains in rural community at study end
- Main outcome measure = Hazard of leaving (Cox PH)

Results

Geographical location and community factors

- Health worker retention decreases as geographical remoteness increases and community population size decreases

Geographical Characteristics	Hazard of Leaving
Remote & population <5,000	2.65
Outer regional & population <5,000	1.33
Inner regional & population <5,000	1.00



Results

Profession

- Health worker retention varies by health worker profession

Profession	Hazard of Leaving
Doctors and Allied Health Professionals	1.80
Nurses and Aboriginal Health Workers	1.00

Podiatrists	2.13
Occupational therapists	1.00

Results

Professional factors

- Health worker retention varies according to a range of professional factors

Professional Factors	Hazard of Leaving
Not a hospital VMO (GP)	1.42
Not a proceduralist (GP)	1.49
Employment grade 1 when commencing (Allieds)	1.75
Employment grade 3 when commencing (Allieds)	1.00
	Effect size
Weeks annual leave taken (for each week) (GP)	1.03



Results

Regulatory factors

- Health worker retention in rural and remote Australia varies according to whether or not the health worker is mandated to work in Districts of Workforce Shortage

Regulatory Factor	Hazard of Leaving
Fully registered GP	1.49
Conditionally registered GP	1.00

Results

Educational (and cultural) factors

- Doctors graduating from Australian universities have longer retention in rural and remote Australia compared to overseas trained doctors (after adjusting for conditional registration)

Educational Factor	Hazard of Leaving
GP trained overseas (but not in UK, Ireland, Canada, USA or NZ)	1.45
GP trained in Australia	1.00

Policy applications

Differences exist in rural retention according to remoteness *and* population size

- Retention is much more of a problem in small remote communities and small outer regional communities. This should be taken into account when
 - Allocating and scaling GP retention incentives
 - Scaling HECS reimbursement
 - Scaling return of service obligations for Australian graduates
 - Scaling reductions in 10 year moratorium for IMGs

Policy applications

Differences exist in rural retention according to profession

- The retention of Allied health professions in small rural and remote locations is similarly short to that of doctors.
- There is some variation in rural retention within Allied health professions.
 - Retention incentive programs such as HECS reimbursement could be expanded to target Allied professions with the poorest retention working in small outer regional and remote communities

Policy applications

Differences in retention according to procedural and hospital activity

- Scaling up of rural generalist training pathways
- Maintaining rural hospital infrastructure
- Up-skilling and skill maintenance support programs

Differences in retention by employment grade

- There is a need for improved rural career pathways for Allieds that allows career progression without requiring them to leave rural communities

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Policy applications

Differences in retention according to amount of annual leave taken

- Adequate resourcing of rural and remote GP locum support programs

Policy applications

Differences in retention according to conditional licensing and IMG status

- Conditional licensing appears to be effective for the duration of restrictions, but once the restrictions are lifted retention is shorter.
 - Improve the accessibility of training and professional support for rurally mandated health workers
 - Promote professional and social integration of health workers trained outside of Australia
 - Close matching of mandated individuals to rural communities

Further reading

- **Russell DJ**, Humphreys JS, McGrail MR, et al. The value of survival analyses for evidence-based rural medical workforce planning. *Hum Resour Health* 2013; 11: 65.
- **Russell DJ**, McGrail MR, Humphreys JS, et al. What factors contribute most to the retention of general practitioners in rural and remote areas? *Aust J Prim Health* 2012; 18: 289-294.
- **Russell DJ**, Wakerman J, Humphreys JS. What is a reasonable length of employment for health workers in Australian rural and remote primary healthcare services? *Aust Health Rev* 2013; 37: 256-261.
- Chisholm M, **Russell D**, Humphreys J. Measuring rural allied health workforce turnover and retention: What are the patterns, determinants and costs? *Aust J Rural Health* 2011; 19: 81-88.



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