

# MABEL data: Rural workforce supply and distribution theme

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**MELBOURNE INSTITUTE**<sup>®</sup>  
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# Research aims

- To better understand how changes in personal and professional circumstances influence the decision to stay in, or leave, rural and remote areas
- To provide evidence of the effectiveness of current and future medical workforce policy initiatives in improving recruitment and extending lengths of stay in rural and remote areas

# The rural health problem

- **Rural health status** and **access** to services worse than in cities
- **Workforce** is the key to accessible health care
- Persistent workforce **shortage** & worsening **maldistribution**
- Increasing supply without addressing rural **recruitment and retention** issues will not solve this problem

# Past work – recruitment / retention

- Li, J. et al (2014). "Retaining rural doctors: doctors' preferences for rural medical workforce incentives." Soc Sci Med **121**(1): 56-64.
  - *Critical importance of locum relief incentives*
- Scott, A. et al (2013). "Getting doctors into the bush: General Practitioners' preferences for rural location." Soc Sci Med **96**(1): 33-44.
  - *Disincentive of on-call burden, potential locum difficulties, isolated small inland towns*
- McGrail, M. et al (2011). "Rural amenity and medical workforce shortage: Is there a relationship." Geog Res **49**(2): 192-202.
  - *Evidence of locational 'attractiveness' to rural doctors*

# Past work – life as a rural doctor

- McGrail, M. et al (2012). "How do rural GPs' workload and work activities differ with community size compared with metropolitan practice?" Aust J Prim Health **18**(3): 228-233.
  - *Evidence of higher on-call and hospital workload in smaller towns*
- Humphreys, J. et al (2012). "Who should receive recruitment and retention incentives? Improved targeting of rural doctors using medical workforce data." Aust J Rural Health **20**(1): 3-10.
  - *Importance of town size, as well as remoteness, to work and life experience of rural GPs – Modified Monash Model*
- McGrail, M. et al (2010). "Professional satisfaction in general practice: Does it vary by community size?" Med J Aust **193**(2): 94-98.
  - *Evidence of similar satisfaction across most professional aspects and town size*

# Current work - Rural GP mobility

- 6 waves of data (2008-2013)
- Annual location retention rates were:
  - 95% (>50K), 92% (15-50K), 89% (<15K)
  - 89% remote, 82% very remote
- Overall, 1 in 31 annual “risk” of moves from rural to metropolitan
- Additional 1 in 14 annual risk of intra-rural moves
- Movers: contract/salary employees, IMGs, younger

*Paper accepted (April 2015) by Med J Aust: “Geographical mobility of general practitioners in rural Australia” (McGrail & Humphreys)*

# New research - mobility

- Panel data: observe geographical transitions against professional, family, location characteristics
- Wave 1 (2008) – wave 9 (2016)
- **Impact on rural GP mobility of:**
  - Less desirable work environment
  - Career stage
  - Family status / stage
  - Place amenity / attractiveness
  - Role of satisfaction (professional, non-professional)

# Specialists: rural outreach

## Completed

- An analysis of the national outreach policy
- Participation and remote distribution
- Geographic patterns of outreach
- The stability of rural outreach

## Ongoing research

- Effect of financial support policies on targeted outreach
- Equitable billing
- Workforce motivations
- Mandated outreach

*PhD candidate: Belinda O'Sullivan (2013-2016)*



# New: GP Proceduralists (1)

<i>Participation rates (%)</i>	<b>Anaesthetists</b>	<b>Obstetrics</b>	<b>Surgery</b>	<b>Emergency</b>
Metropolitan RA 1	0.9%	6.0%	5.4%	7.1%
Regional >50K	4.3%	8.5%	7.5%	13.0%
Large rural 15-50K	5.3%	10.9%	6.7%	17.3%
Medium rural 5-15k	15.2%	23.4%	10.9%	49.5%
Small rural <5K	8.7%	15.0%	11.0%	45.4%
Remote RA 4	10.7%	19.3%	8.7%	60.0%
Very Remote RA 5	19.4%	25.0%	4.2%	75.0%

# New: GP Proceduralists (2)

<b><i>Average hours / week per setting</i></b>	<b>Non procedural</b>	<b>Anaesthetists</b>	<b>Obstetrics</b>	<b>Surgery</b>	<b>Emergency</b>
Private rooms	30.3	30.4	30.7	33.2	30.4
Public hospital	1.4	13.7	8.6	5.1	9.6
Private hospital	0.4	2.1	0.7	3.5	0.8
Other	5.7	5.4	6.3	4.6	7.4
Total	36.8	50.0	45.0	45.1	47.0

# New: Rural 'pipelines'

- McGrail, M. et al (2011). "Nature of association between rural background and practice location: A comparison of general practitioners and specialists." BMC Health Serv Res 11: 63.
  - *Confirmed association between length of rural childhood exposure and rural practice*

## Future:

- Do rural-background doctors return 'home' to practise?
- How strong is the influence of medical school and vocational training, on practice location choice?
- Effect of rural-bonded / scholarship on location choices of locally-trained doctors?
- Evidence of reduced reliance on IMGs for rural supply?

# Other new work

- Influence of geography:
  - further tease out workload, on-call, unpredictability of hours worked, difficulty of getting time off, etc. by rurality; how do these change for individuals who move in/out of rural practice?
- Rural specialists:
  - Who are they, what are their work patterns, how do they change over time?
- Rural IMGs
  - Link between mobility and mandate status; changes over time of practice settings, satisfaction

# Better understanding...

- Most comprehensive data available to examine the **role** and **inter-relationship** of key variables in explaining rural medical workforce recruitment and retention.
- Enables research analysis to move beyond bivariate associations to model the **complexity** of the issues.
- Better understanding of **how** ‘rurality’ impacts upon
  - what doctors do,
  - the circumstances in which they do it, and
  - and their decision-making as a consequence of perceived and actual professional and personal satisfaction.

# MABEL

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**An indispensable resource for  
rural workforce planning**

**THANK YOU**