Methods and preliminary findings
Background

• Inequitable distribution of health workforce in rural Australia
• WHO recommends tracking health professionals from university onwards
  • Can identify factors that influence workforce outcomes
• Tracking studies mostly in medical profession. Three predictors of graduate rural practice:
  o rural origin
  o exposure to rural settings during training
  o rural practice intention as undergraduate
• Much less known about nursing and allied health workforce
  • Few studies, limited scope
  • Evidence gap about why graduates work in rural or metro location
Background: The NAHGOT study

A longitudinal study, links data from:

**University datasets**
- Enrolment & course data
- Students’ rural origin
- Clinical placement data

**Surveys of students & graduates**
- Intentions re rural practice
- Reasons for practice location

**Australian Health Practitioner Regulation Agency (AHPRA) data**
- Current practice location
- Over 10 years

- Targets entire student cohorts in multiple disciplines, across multiple universities
- Overall aim to explore factors influencing NAH health graduates’ choice of metro or rural location
Aims of this analysis

- To explore whether nursing and allied health students’ rural origin and rural clinical placements are associated with their practice locations as first year graduates
  - Demonstrate the feasibility of the data linkage components of the methodology
Methods – steps

Inclusion criteria
- UON or Monash student
- Completed in 2017
- Domestic student
- Single degree, pre-registration course

University data
- Rural origin
- Placement location & duration

AHPRA data
- AHPRA ID
- Used to extract 2018 practice location from AHPRA

Analysis
Logistic regression to identify student-level predictors of graduate practice location
- Are rural origin or rural clinical placements associated with location of practice after graduation?
Results – demographic characteristics at enrolment

Total number of students = 1,130 (81%): UON = 742; Monash = 388

At both universities, nursing more likely than allied health to be female
Monash students younger & less likely to be rural origin than UON students (not shown)
At both universities, allied Health had more rural placement days than Nursing students
UON students had more rural placement days than Monash students
At both universities, no differences between Nursing and Allied Health graduate rural practice location. Graduates from UON more likely to be working in a rural location than Monash graduates.
### Results – logistic regression

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Adjusted Odds Ratio (95% confidence interval)</th>
<th>Key finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural origin</td>
<td>3.93 (2.73, 5.66)$^1$</td>
<td>Students of rural origin had nearly 4 x the odds of practicing in a rural location after graduation</td>
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<tr>
<td>Number of rural clinical placements</td>
<td>1.62 (1.43, 1.83)$^2$</td>
<td>For every X1 increase in rural placements, graduates had 1.6 greater odds of practicing in a rural location</td>
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<tr>
<td>Days of rural clinical placements</td>
<td>1.02 (0.56, 1.85)$^2$</td>
<td>No association between ≤ 20 days of rural placement and rural graduate location</td>
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<td></td>
<td>2.98 (1.91, 4.65)$^2$</td>
<td>&gt;20 days of rural placement was associated with almost 3 times the odds of practicing in a rural location</td>
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$^1$Adjusted for university and number of rural placements; $^2$Adjusted for university and student rural origin
Summary & next steps

• Limitations
  • Missing placement or AHPRA data
  • Two universities only

• A positive impact of rural placements and origin on rural practice for Nursing and Allied Health graduates

• Demonstrates feasibility of data linkage

• NAHGOT may help address workforce maldistribution by identifying those most likely to practice in a rural location
  • Support universities in recruitment and selection processes
  • Improve targeting of student subsidies & support high quality rural placements
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