



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

University of Newcastle
Department of Rural Health

COUNTING THE CHICKENS AS THEY HATCH: TRACKING STUDENTS AND THE RURAL HEALTH PIPELINE

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BACKGROUND

- Geographic maldistribution of Australian health workforce
- Variety of recruitment and retention initiatives to gain, train and retain rural health workforce
- Rural Health Multidisciplinary Training (RHMT) Program
 - 15 University Department of Rural Health
 - 18 Rural Clinical Schools

OBJECTIVES OF RHMT PROGRAM

- Provide rural health training for students
- Develop an evidence base for effectiveness of rural training strategies
- Support rural health professionals to improve Indigenous health
- Increase the number of rural origin health professional students
- Maintain academic networks for training and provision of services



RHMT PROGRAM PARAMETERS

Parameter 5:

Maintain and progress an evidence base and the rural health agenda

- iii. Collect and maintain data on rural workforce outcomes ...
 - Establish tracking systems for graduates, or utilise national data collections such as the Medical Schools Outcomes Database and the Australian Health Practitioner Regulation Agency,

TWO ONGOING TRACKING STUDIES

- UONDRH Joint Medical Program (JMP) Tracking Study
- Nursing and Allied Health Graduate Outcomes Tracking (NAHGOT) Study

UONDRH JOINT MEDICAL PROGRAM (JMP) TRACKING STUDY

Joint Medical Program (JMP) delivered by UON & UNE commenced in 2008

Aim:

To determine how many domestic JMP graduates practice in rural locations in the early stages of their career

Objectives:

- Track domestic JMP graduates' location of practice from PGY 3 -10
- To determine the association between JMP undergraduate participation in extended RCS placement and rural location of practice



JMP TRACKING STUDY METHOD

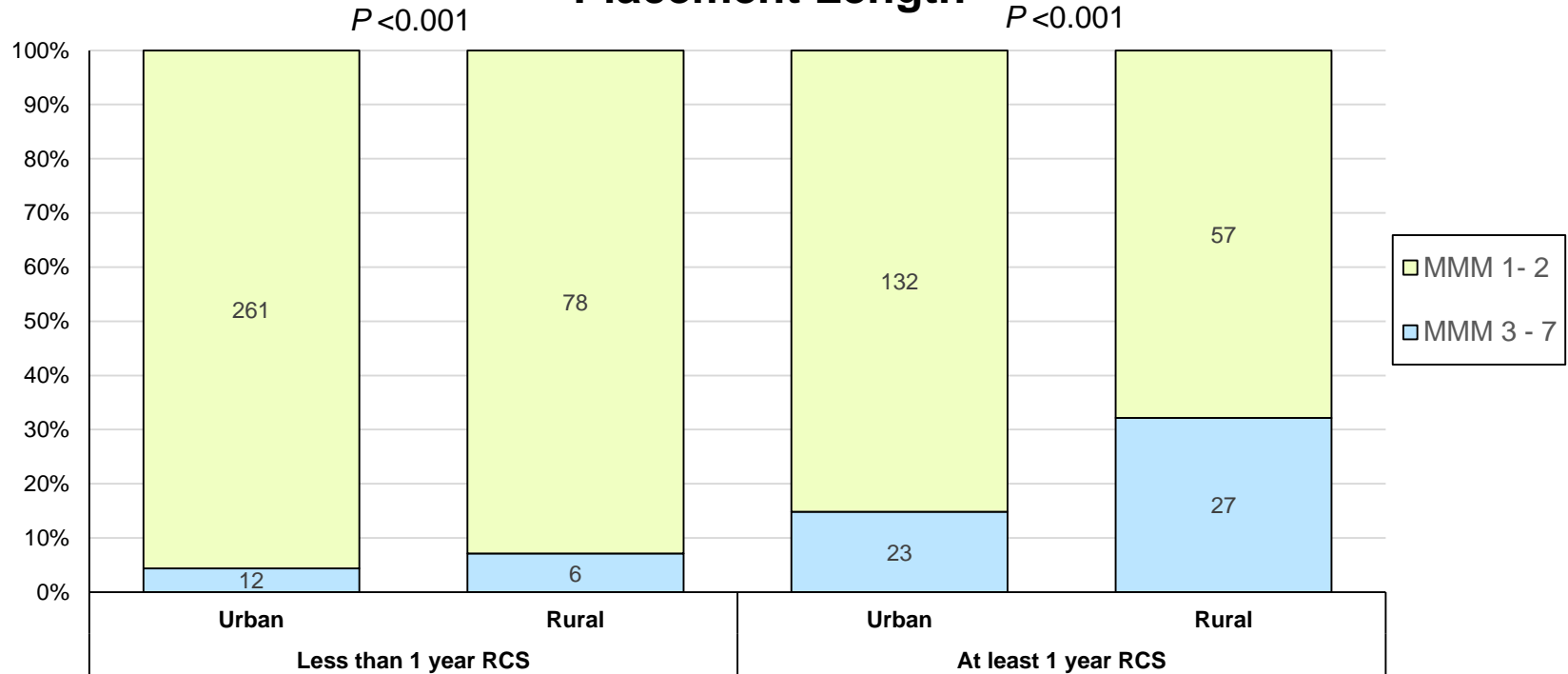
- Target:
 - Domestic JMP graduates (since 2012)
- Data collection
 - Demographic data (from Faculty dataset):
 - Rural background, RCS placement length, bonding, Aboriginality, age and gender
 - Outcome data (from AHPRA website):
 - Principal place of practice from PGY 3 -10

RESULTS TO DATE

- 631 domestic graduates (2012-2016)
- 596 (94.4%) have been tracked through AHPRA

PGY	Current Practice location, n (%)		P value
	Urban (MMM1-2)	Rural (MMM 3-7)	
3	154 (89.0%)	19 (11.0%)	0.614
4	142 (86.6%)	22 (13.4%)	
5	126 (91.3%)	12 (8.8%)	
6	106 (87.6%)	15 (12.3%)	
Total	528 (88.6%)	68 (11.4%)	

PGY 3-6 Locations Based on Background and RCS Placement Length



NURSING AND ALLIED HEALTH GRADUATE OUTCOMES TRACKING (NAHGOT) STUDY

Aim:

Contribute to the body of evidence about factors that influence rural nursing and allied health workforce recruitment

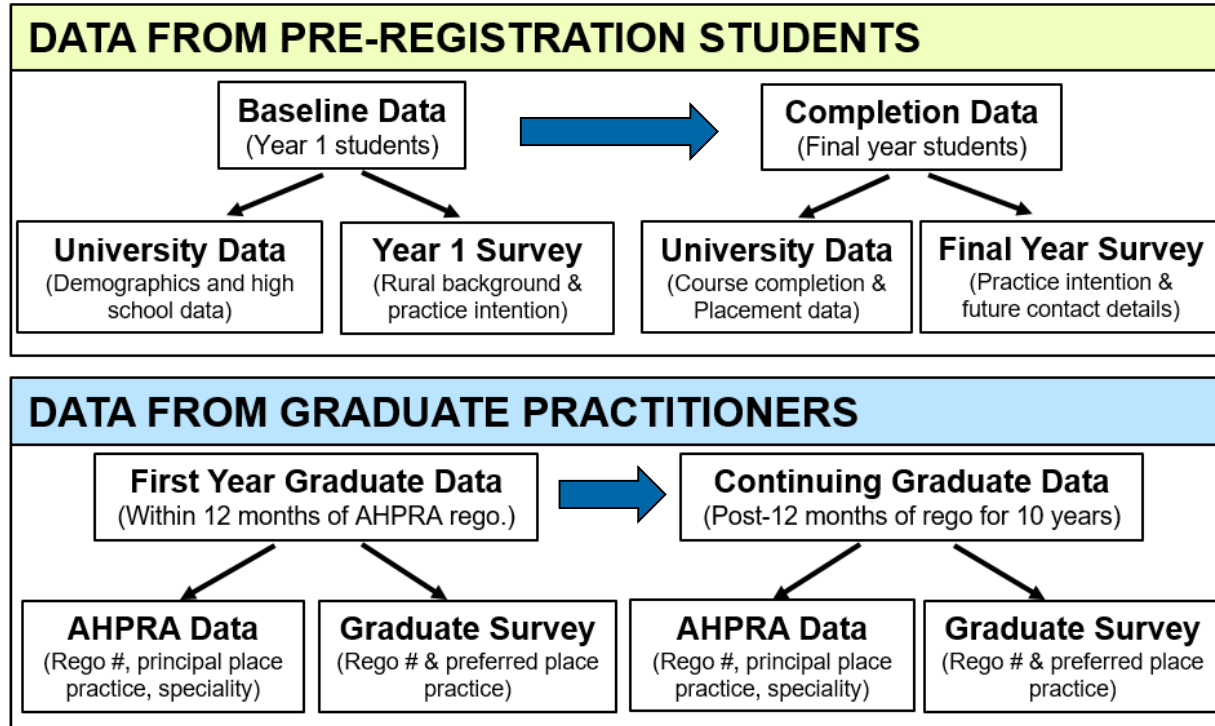
Objectives:

- Track allied health and nursing students at Monash University and the University of Newcastle from Year 1 into graduate practice
- Compare pre-graduation 'future practice intentions' with actual, post graduate practice location over a 10-year period

Ethics x 2: MUHREC & UONHREC



NAHGOT STUDY METHODS



DATA SOURCES

University Data

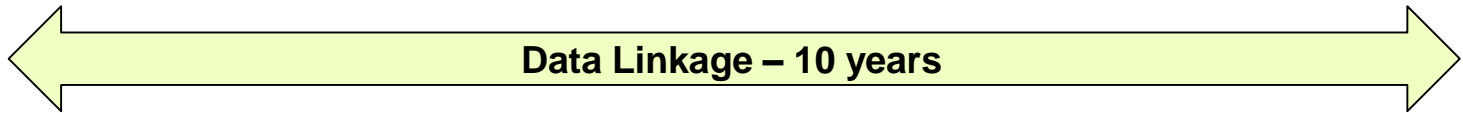
- Routinely collected
- Enrolment data
 - Student ID, Demographics, Discipline, etc.
- Professional placement data
 - Location, duration, etc.

Student Survey Data

- Twice per year
 - First year
 - Final year
- Rural origin
- Intended practice location
- Request to follow-up in final year

Post-Registration Data

- Student ID (supplied by graduate)
- Registration number
- Principal practice location
- Annual follow-up
- Graduate survey



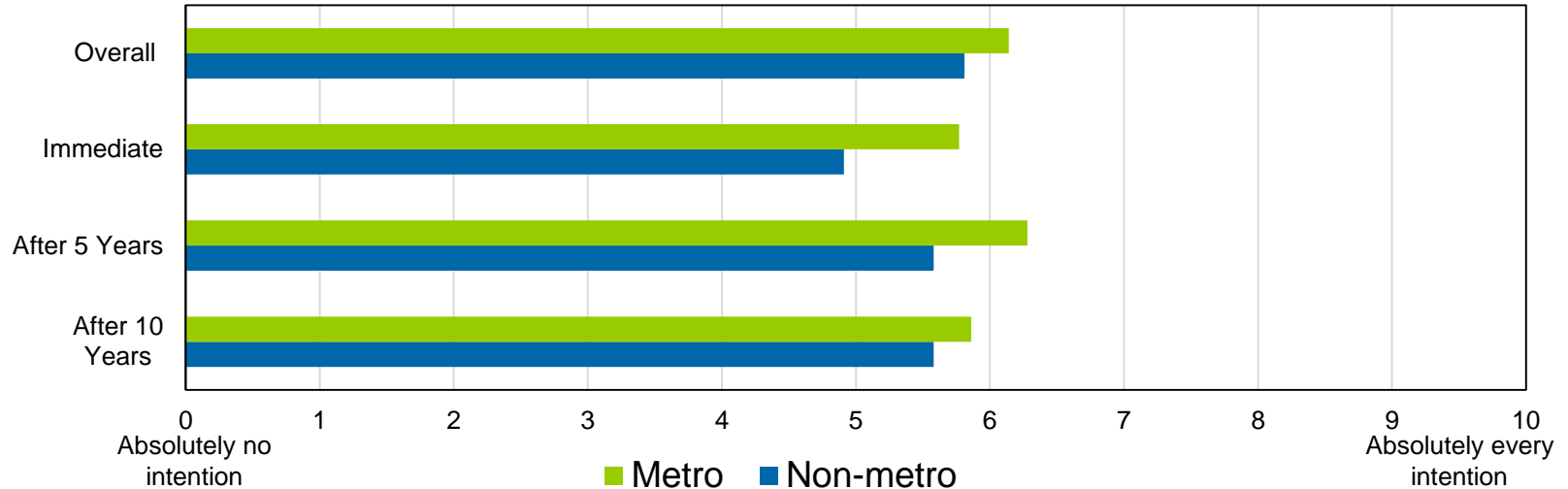
TARGET HEALTH PROFESSIONS

Health Profession	Year 1 Enrolments 2018	
	Uni of Newcastle	Monash Uni
Medical Radiation (Diagnostic Radiography)	117	65
Medical Radiation (Nuclear Medicine)	58	-
Medical Radiation (Radiation Therapy)	63	-
Midwifery	53	67
Nursing	954	563
Occupational Therapy	134	136
Paramedicine	-	271
Pharmacy	85	183
Physiotherapy	117	149
Podiatry	77	-
Psychology	-	171
Total	1,658	1,605

PILOT SURVEY STUDY DATA

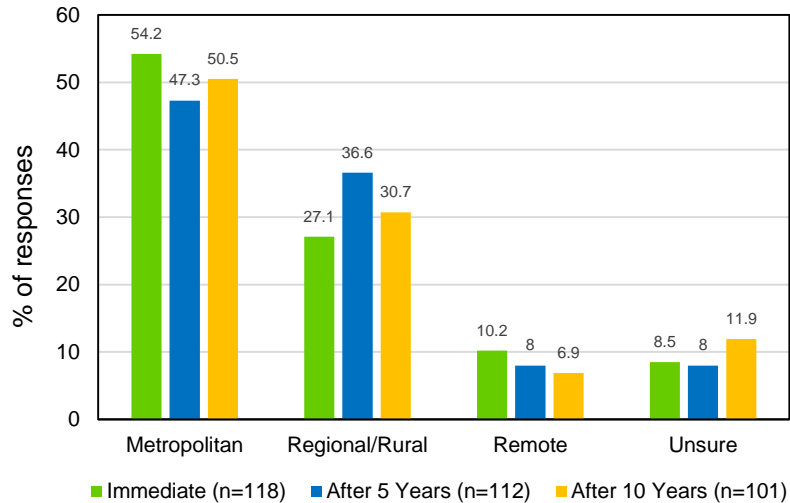
FINAL YEAR 2017 - UON ONLY (N = 40)

Preferred Practice Location
(Mean score on 10 point scale)

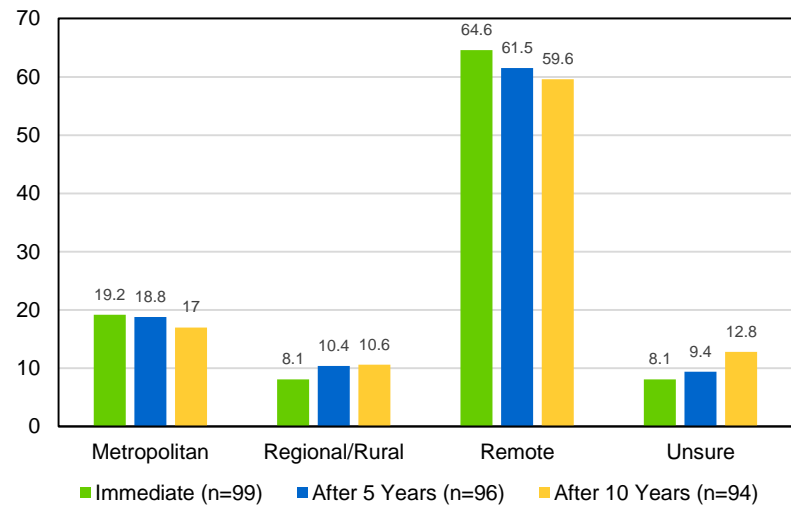


YEAR 1 STUDENTS 2018

Most Preferred Practice Location



Least Preferred Practice Location



RECRUITMENT & RETENTION

- Known to be multi-factorial
- Different in remote, rural, regional, inland and coastal
- Often professional, social and environmental factors
- Mobility and dual careers both recent demographic changes
- Small communities changing in relative attractiveness (digital divide)
- Balanced by sense of community and rural lifestyle

WHAT HAVE WE LEARNED?

- High levels of complexity:
 - Many players – Students, Universities, Government, Health Departments, Multiple Professions, AHPRA
- Multiple Variables (and confounders):
 - Not just rural or urban origin
 - Scholarships, other rural practice inducements, family & friends, environment, affordability, job availability, etc.
 - Changing educational regimens and practice conditions

DATA COLLECTION CHALLENGES

- Student surveys may be of limited value
 - Survey saturation => Low response rates
 - What about incentives?
 - Various online survey instruments:
 - Survey Monkey, Qualtrics, RedCap
- Collaborations need agreed definitions and language (data dictionary)
- Data linkage:
 - Uni administrative data, professional placement data, AHPRA data
 - Loss to follow-up



CONCLUSIONS

- Early days – need to clearly define protocols and maintain consistency
- Need for high quality, generalisable evidence requires:
 - Rigorous study design and protocols
 - Significant time and investment
- **Retention!** - The job is only just beginning once the chicken is hatched

